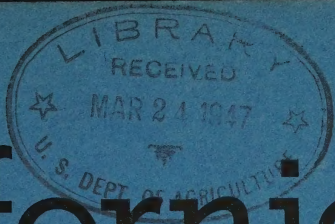


1.42
Ad 4 Cal
copy 6



California

FARM HANDBOOK

~~~~~ 1941 ~~~~~

**Public Services**  
**Available to Agriculture**

ISSUED BY THE  
UNITED STATES DEPARTMENT OF AGRICULTURE IN COOPERATION  
WITH THE UNIVERSITY OF CALIFORNIA ■ 1941

~~~~~  
For sale by the Superintendent of Documents, Washington, D. C. Price 15 cents

California

FARM HANDBOOK

Public Services Available to Agriculture

The Farm Handbook lists the agricultural services available to farm people in California. It includes public services available from Federal, State, and county sources.

Farmers are invited to write, telephone, or visit the office of the County Farm Advisor for information on any of the services listed in the handbook. If the County Farm Advisor cannot provide the service, he will advise where and how such service may be obtained. Farmers are also welcome to write to the Agricultural Extension Service, University of California, Berkeley, Calif., or to the United States Department of Agriculture, Washington, D. C., for further information on any agricultural subject.

United States Government Printing Office

Washington, D. C. ■ 1941

California Farmers and National Defense

California farmers have an opportunity to increase food production under a program in which the Government will make price-supporting purchases to assure farmers a favorable return from converting livestock feed into livestock production, and for increasing production of certain vegetables. Detailed particulars may be obtained from the county agent or the AAA chairman. See Agricultural Conservation Program, page 1.

Information on agriculture in defense, including such subjects as nutrition, home food production, health, soil conservation, rural electrification, the European food situation, and hemisphere cooperation is available from State and Federal Governments. See Information Services, page 57. Aid in the organization of discussion groups and source material for their use may be obtained through the county agent.

Services listed in this handbook offer California farmers assistance in meeting changing conditions.

As part of the National Farm Program, cotton stamps are offered cotton growers making further acreage adjustments for 1941. The stamps are good for the purchase of manufactured cotton goods at retail. Further information may be obtained from your county agent or AAA chairman. See Agricultural Conservation Program, page 1.

Persons having skills needed in defense industries should register with their nearest State employment office. See Farm Labor, page 34. Training courses for young people and "refresher" courses for adults to help meet the needs of national defense are being organized in many high schools in rural districts throughout the State. See Agricultural Education, page 8. National Youth Administration work projects provide practical experience to out-of-school rural youth in projects essential to national defense. NYA youth may also attend shop classes in vocational agriculture high schools. See page 94.

Land use planning committees offer rural communities a means of helping to adjust successfully in case of the establishment of defense industries or bases. See Land Use Planning, page 66. Assistance to farm families in relocating is available from the county agent. Financial assistance where necessary and help in finding new locations may be obtained from the Farm Security Administration rehabilitation supervisor. See Loans, page 76. For assistance in planning production of food for sale to military or naval authorities see your county agent and the services listed under Marketing, page 80.

Contents

	Page
Agricultural Conservation Program	1
Agricultural Education	5
Beekeeping	10
Buildings and Engineering	11
Citrus Fruits	13
Cover Crops	15
Crop and Livestock Estimates	16
Crop Insurance	19
Dairying	20
Debt Adjustment	23
Deciduous Fruits	24
Drainage and Alkali	26
Experiment Stations and Farms in California and Principal Kinds of Agricultural Research	28
Farm Accounts and Enterprise-Management Studies	32
Farm Labor	34
Feeding Stuffs (Commercial)	37
Fertilizers and Soil Amendments	38
Field and Forage Crops	39
Fire Protection	40
Flowers and Floriculture	42
Forestry and Windbreaks	43
4-H Clubs	46
Future Farmers	47
Gardening	48
Grades and Standards	49
Homemaking	53
Information	57
Insect Control	60
Irrigation and Water Supplies	61

	Page
Landscape Gardening	65
Land Use Planning	66
Livestock	69
Livestock Inspection and Disease Control	70
Loans	72
Market Enforcement	78
Marketing	80
Market News	83
Nursery Licenses and Fruit-Tree Registration	84
Plant Diseases	85
Poultry	86
Quarantines	88
Range	90
Relief	92
Rodents and Predatory Animals	94
Rural Electrification	95
Seeds	96
Septic Tanks	98
Soil Conservation	99
Soils	100
Spray Residue	101
Storage and Transit	102
Subtropical Fruits	103
Trade-Marks	104
Vegetable Crops	105
Weather	106
Weeds and Poisonous Plants	110
Weights and Measures	112
Wildlife	113

Agricultural Conservation Program



General Information

Information on all phases of the agricultural conservation program and related activities of the Agricultural Adjustment Administration, and on other activities supplementing the conservation program, may be obtained from the office of the County Agricultural Conservation Association and from the office of the county farm advisor. The agricultural conservation program includes soil and range-building practices, acreage allotments, and conservation payments. Related parts of the AAA and supplementary features are: price adjustment payments, marketing quotas, commodity loans, and crop insurance. Information also may be obtained from the county and community committeemen of the agricultural conservation association.

The county and community committees, cooperating with the California Agricultural Conservation Committee of the AAA, are in charge of the field administration of the agricultural conservation program and related activities, and of the sugar program, operating under the Sugar Act of 1937.

Participation in the Agricultural Conservation Program

In order to participate in the agricultural conservation program, the procedure is as follows:

- Grower receives notice of acreage allotments and normal yields.

- Grower executes a "Farm Plan and Estimate" form each year prior to the closing date.

- Grower plants within the acreage allotment determined for the farm.

- Grower performs soil- or range-building practices on his farm or ranching unit.

- The county committee determines compliance with the conservation program on each participating farm.

- Grower files an application for payment.

Performance in the agricultural conservation program is based on a program year beginning September 1 and ending August 31.

Soil- and Range-Building Practices

Soil- and range-building practices are outlined in the agricultural conservation program handbook. The practices in the crop program include seeding green manure and cover crops, annual, biennial, and perennial grasses and legumes; application of sulphur and phosphate; renovation of legumes and grasses; planting and maintaining forest trees; constructing reservoirs and dams; and others. The 1941 program by providing for inclusion of approved local supplemental practices to meet specific local problems is widening the opportunity for conservation in many California areas. Two other practices are also included in 1941. These are the removal of diseased and uneconomic apple trees in commercial areas and planting orchards on the contour. Practices in the range program include deferred grazing, reseeding, the control of erosion, the development of stock water, weed control, and employment of fireguards.

Some of these practices require prior approval from the county committee if payment is to be made for their performance.

Acreage Allotments

Acreage allotments are determined for all farms in California for cotton, rice, and wheat. Potato and vegetable acreage allotments are determined only in certain designated commercial counties. General acreage allotments for all other soil-depleting crops are determined only in A counties (all counties south of San Francisco, Shasta, and Mono Counties, except San Bernardino and Orange).

Agricultural conservation payments are made to growers for not planting in excess of the acreage allotment and for carrying out approved soil- and range-building practices.

Parity Payments

When appropriations are made by Congress, cotton, rice, and wheat growers who plant within their acreage allotments receive a parity payment. This is in addition to the agricultural conservation payment.

Marketing Quotas

Marketing quotas for cotton, rice, and wheat, may be voted upon by growers if supplies become excessively large, as provided in the farm act. If two-thirds of the growers voting favor quotas, the quotas are put into effect.

Under cotton marketing quotas, a grower is permitted to market the cotton produced on his acreage allotment or an amount of cotton equal to the normal yield of cotton on the cotton-acreage allotment, whichever is larger. Amounts marketed in excess of the quota are subject to a penalty, which for cotton is 3 cents per pound.

Whenever wheat and rice supplies are so large as to make marketing quotas applicable, marketings are subject to provisions which are generally similar.

Commodity Loans

Cotton loans, when available, may be made to growers who have planted cotton within their cotton acreage allotment. When marketing quotas are in effect, noncooperators also are eligible for loans, but only at 60 percent of the rate to cooperators and only on the portion of the crop which is subject to quota penalty.

Similar loan provisions apply to wheat stored either in approved farm bins or public warehouses. Barley loans, when available, may be made on farm or public warehouse stored collateral to growers who have not planted soil-depleting crops in excess of the total acreage allotment for the farm.

Crop Insurance

Crop insurance is available for wheat. The coverage is on the basis of 75 percent or 50 percent of the normal production

on the farm. The insurance is against all natural hazards, such as floods, drought, insects, plant diseases, fire, etc.

Applications for crop insurance, to be acceptable, must be filed prior to the closing date established, or the seeding date, whichever is earlier.

Sugar Program under Sugar Act of 1937

The sugar program provides for payments to sugar-beet growers, based upon the hundredweight of sugar produced on the farm.

The Sugar Act requires, if payments are to be received, that a grower shall not plant in excess of his acreage allotment; that he must perform soil-conserving requirements; and that he must conform with minimum wage rate and labor standards.

Farm Maps and Aerial Prints

Most of the agricultural land in California has been aerially photographed, and prints have been prepared. These photographs are used by the Association to determine farm acreages. Copies of these photographs may be purchased by growers from the Agricultural Conservation Association at a nominal price.

Agricultural Education



UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE

The College of Agriculture is the unit of the university devoted primarily to the agricultural industries and rural life in California. The College of Agriculture has three principal functions as follows: (1) Resident teaching, (2) research, and (3) extension.

Resident Teaching

The University of California offers instruction in agriculture and home economics leading to the degree of bachelor of science on its campuses at Berkeley and Davis, in the field of subtropical horticulture at Los Angeles, and graduate study in subtropical horticulture at Riverside. The University of California also offers instruction in nondegree curricula in agriculture at Davis for persons who desire some scientific knowledge of agriculture, but who do not wish or are not qualified to take the regular 4-year degree program of study.

The College of Agriculture provides on the campus at Berkeley instruction in agricultural economics, agronomy, entomology and parasitology, forestry, fruit products, genetics, home economics, landscape design, plant pathology, poultry husbandry, soil science, and animal pathology. Several of these divisions of study have equal and additional facilities at Davis. The following divisions of teaching are given at Davis: Agricultural engineering, agronomy, animal husbandry, botany, chemistry, dairy industry, entomology and parasitology, home economics, irrigation, landscape gardening, plant pathology, pomology, poultry husbandry, soil science, truck crops, animal pathology, viticulture, and zoology. Subtropical horticulture is offered on the campus at Los Angeles.

The nondegree instruction provided at Davis requires for its full completion 2 years of instruction. Nondegree studies include agricultural mechanics, agronomy, animal husbandry, dairying, home economics, horticulture, landscape gardening, poultry husbandry, and truck crops. Information concerning courses of instruction and requirements for both the degree and the nondegree curricula may be obtained from the College of Agriculture, Berkeley.

Research

The University of California conducts research and experimental work in a wide field of agricultural science. Many of the research projects are conducted in cooperation with the United States Department of Agriculture. See Experiment Stations and Farms, etc.

Agricultural Extension Service

The College of Agriculture maintains a staff of resident representatives in 42 counties in the State of California. The county farm advisors and home demonstration agents, together with extension specialists, endeavor to supply factual information on farming and farm living to farmers and farm families. Agricultural Extension teaching is aimed to improve farm income, the farm family standard of living, and conservation of the natural resources of soil and water.

The Agricultural Extension Service endeavors to bring to the farms in the State the results of research developed by State and Federal experiment stations. These results are tested in trial plots, and, if the results are economically feasible, are brought to the attention of farm people by means of demonstrations, lectures, and meetings. New information on farm problems is also developed through field trials conducted on farms within the community. Problems which confront farm people, and which are not readily solved in the field, are brought to the attention of the experiment station for solution. The county farm advisors and home demonstration agents are joint employees of the University of Cali-

fornia and the United States Department of Agriculture. County governments also cooperate in the maintenance of the service by contributing to the local travel and office expenses.

Field and demonstration meetings, tours, field days, farm and home calls, office visits, and other educational activities of the Agricultural Extension Service are available to the general public. Copies of Farmers' Bulletins prepared by the United States Department of Agriculture, and bulletins and circulars prepared by the Agricultural Experiment Station of the University of California, may be obtained from the office of the county farm advisor.

Correspondence courses in agriculture are available on a limited number of subjects. Information on such courses is available at the office of the county farm advisor.

University Extension Division (University of California)

The Extension Division offers facilities to men and women who seek some form of higher education, but are prevented from taking up residence at the University. The University of California, therefore, furnishes, through the Extension Division, educational opportunities to adults living in any part of the State.

The work is carried on in five ways:

1. Classes are organized in cities and towns wherever a sufficient number of people can be secured who wish to study a subject. Instruction is offered in art, business methods, economics, education, engineering, geography, history, languages, law, literature, mathematics, political science, psychology, public speaking, science, etc.

2. Courses are given by mail in art, astronomy, composition and literature, drawing, economics, education, engineering, history, the languages, mathematics, music, philosophy, physics, political science, psychology, etc. Courses may begin at any time.

3. Lectures, singly or in series, are provided for any committee, club, organization, or community in the State that will make the necessary arrangements for their delivery.

4. Labor education offers educational facilities designed to serve the needs of industrial workers.

5. The Extension Division circulates visual aids such as motion-picture reels, which cover many phases of educational work.

Persons desiring to take advantage of the facilities offered by any one of these departments may receive detailed information on request. Address the Extension Division, University of California, Berkeley; or 815 South Hill Street, Los Angeles; or Room 130 Administration Building, University of California at Los Angeles, Los Angeles.

VOCATIONAL AGRICULTURE IN PUBLIC SCHOOLS

Vocational agriculture is offered in about 200 public secondary schools in California. Each school offering such instruction has one or more vocational agriculture teachers. Information concerning the general program of vocational agriculture in California, and a directory of agricultural teachers, may be secured from the Bureau of Agricultural Education, California Polytechnic School, San Luis Obispo.

All-day vocational agriculture classes are conducted for farm boys in district high schools and in a few junior colleges. Information should be obtained from the director of vocational agriculture in the high school or junior college.

Part-time vocational agriculture classes are conducted in many secondary school districts and offer free systematic instruction and counseling to out-of-school young farmers. The director of the vocational agriculture department is in charge of the part-time instruction for his district and is adviser for the members of the California Young Farmers' Association. Information may be obtained from the vocational agriculture teacher.

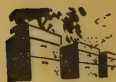
Many school districts offer free evening classes for adults. The courses of instruction offered to these classes must consist of at least 10 lessons, covering a specific field of agricultural endeavor. Information is available from the vocational agriculture teacher.

California State Polytechnic School

California State Polytechnic School is designated by the State Board of Education as the service institution for the vocational agriculture program in California. It is directly administered by the chief of the State bureau of agricultural education, who also supervises the vocational agriculture program in the district high schools and junior colleges.

California State Polytechnic School has its main campus at San Luis Obispo. Horticulture is taught at San Dimas (eastern Los Angeles County). Two, three, and four-year courses of resident instruction are offered in the fields of meat-animal husbandry, dairy industry (including dairy production and dairy manufacturing), poultry husbandry, crop production, fruit production, ornamental horticulture, agricultural inspection, and several fields of industrial engineering. Inquiries regarding the service features of the school, or resident instruction, should be sent to the office of the president, California State Polytechnic School, San Luis Obispo.

Beekeeping



Information, including bulletins and circulars, is available on beekeeping from the office of the County Farm Advisor.

Disease Clean-up

The control and eradication of bee diseases in California is subject to the California Agricultural Code (secs. 271-284). Enforcement is directed by the State Department of Agriculture, State Apiary Inspector, Sacramento, and the county agricultural commissioner. Practically every county has apiary-inspection service, and inquiry for such service should be directed to the county agricultural commissioner or the county farm advisor.

Grades and Standards (See Marketing)

Minimum standards for honey, including requirements for labeling and containers, established in Agricultural Code (secs. 840-845.2). See State Department of Agriculture or the county agricultural commissioner.

Hive Brands

Optional service: Application for brand to State Department of Agriculture; 50-cent fee; serial brand number assigned. Theft prevention is purpose. (Agricultural Code, secs. 285-285.4.)

Package Bee Certification

Optional service; certifying freedom from disease for out-of-state shipment. See State Department of Agriculture or the county agricultural commissioner.

Buildings and Engineering



Information is available on the repair, modernization, and construction of farm buildings, water supply, electric service, ventilation, heating and plumbing, sewage disposal, fire prevention, irrigation, drainage, etc. A request for such information should be addressed to the county farm advisor.

Regulations governing dairy structures and slaughterhouses are obtainable from the State Department of Agriculture, Sacramento.

Farm-Building Plans

A farm-building plan service is available to the farmers of California. This service includes (1) Farm Building Plans for California, prepared by the Division of Agricultural Engineering, University of California, and (2) Plans of Farm Buildings for Western States, prepared by the United States Department of Agriculture. These two publications include a variety of designs suitable for California, for all types of farm buildings and also for some types of farm equipment. They include farmhouses, dairy structures (designed to comply with State regulations), hog houses, fruit, nut, and vegetable structures, sheep and beef-cattle barns, storage structures, fences and gates, refrigerators, haying equipment, roadside stands, and others.

Blueprint working drawings, together with full description of design and construction and list of materials for each plan, are available from the Agricultural Extension Service, Berkeley, or may be ordered through the office of the county farm advisor. Blueprints are not available from the United States Department of Agriculture. The prices of the blueprints are nominal.

Slaughterhouse plans may be consulted at the State Department of Agriculture offices at Sacramento.

Financing of Farm Structures

Loans are available for the maintenance, construction, and repair of farm buildings through national farm loan associations secured by real-property obligations. Information is available from the information agent, Farm Credit Administration, Berkeley, or from the local national farm loan association.

Loans from private lending agencies can be insured, under title I of the National Housing Act, by the Federal Housing Administration, and are available for the repair, construction, and improvement of farm property. Under FHA terms, payments are made monthly, semiannually, or annually. The money is loaned by banks and other private financial institutions. The Federal Housing Administration does not lend Government money, but insures loans made by approved private lending institutions, thus making available to borrowers the benefits of the FHA plan.

Information may be obtained from local banks, other FHA-approved lending institutions, or from the Federal Housing Administration offices: 315 Montgomery Street, San Francisco; or Post Office and Court House, Los Angeles.

Bulletins and Circulars

Publications concerning agricultural engineering problems, such as farm machinery, equipment, and farm structures, may be obtained from the office of the county farm advisor. Bulletins on sanitation features in meat-plant construction are available from the State Department of Agriculture (Division of Animal Industry).

See Loans, Relief, Rural Electrification, Septic Tanks.

Citrus Fruits

Information on the production and marketing of citrus fruits may be obtained from the office of the county farm advisor. Assistance will be supplied on such problems as recommended varieties, sources of nursery stock, fertilizer practices, methods of irrigation and nutrition, weed control, plant disease and pest control, harvesting, and marketing. Demonstrations and field meetings on pest control, fertilizer practices, and other problems pertaining to citrus fruit production and marketing are held periodically in the citrus communities by the Agricultural Extension Service. Bulletins on these and related subjects are available on request from the office of the county farm advisor and from the United States Department of Agriculture, Washington, D. C.

Pest Control

Information on citrus insect pests and diseases may be obtained from the office of the county farm advisor and also from the office of the county agricultural commissioner. An advisory pest control service has been organized by the county agricultural commissioner in a number of counties in California.

Marketing

The marketing of some of the citrus fruits is regulated by Federal and State marketing control programs. Information is available from the office of the county farm advisor, or from the State Department of Agriculture, Sacramento.

Management Studies

Citrus management studies are being conducted and current local reports on costs, income, and net income are available on the important local varieties at the office of the

county farm advisor in the leading citrus counties in southern California.

See Farm Accounts and Enterprise Management Studies, Grades and Standards, Nursery Licenses and Fruit Tree Registration, Quarantines.

Cover Crops

Information on cover cropping, including cultural practices, rate of seeding, time of planting, and varietal adaptation, may be obtained from the office of the county farm advisor.

Agricultural Conservation Program

Cover cropping is one of a number of soil-building practices included in the agricultural conservation program for California.

The production of Austrian winter pea seed for shipment to Southern States has been stimulated by the AAA grant of aid and purchase program. Information may be obtained from the office of the county agricultural conservation association.

See Seeds, Weeds, and Poisonous Plants.

Crop and Livestock Estimates



General Information

Information on the condition, acreage, yield, production, and value of crops and livestock in California is collected and published currently at Sacramento by the California Cooperative Crop Reporting Service, conducted jointly by the Agricultural Marketing Service of the United States Department of Agriculture and the State Department of Agriculture. Copies of these reports are on file in the office of the county farm advisor and in the office of the county agricultural commissioner.

The county agricultural commissioners, in some cases, compile data on the volume and value of crops and livestock in their counties.

California Cooperative Crop Reporting Service

Reports issued by and which may be obtained from the California Cooperative Crop Reporting Service include the following:

For fruits and nuts:

- Monthly condition and production forecasts and estimates in season.

- Annual summary (issued first of year) giving production and farm value for the year immediately preceding, and comparison with one or more previous years.

- Acreage estimates by counties issued annually.

For field crops:

- Monthly condition and production forecasts, and estimates in season.

- Annual summary (as for fruits above, but including acreages)

- Special seasonal monthly report on cotton.

- Periodic commodity releases, e. g., beans, alfalfa seed, etc.

- Commercial grain stocks in California, issued quarterly.

For truck crops:

- Semimonthly truck crop notes on condition and prospects.

- Annual summary (as for fruits and field crops).
- Special summary of commercial vegetable crops in California showing acreage, production, and value (revised annually).
- For livestock and livestock products:
 - Monthly California and western range and livestock condition report.
 - Special reports, e. g., beef cattle situation, hog situation, sheep and lamb situation, wool situation, western cattle and sheep marketings—all issued periodically.
 - Annual livestock and livestock products summary.
 - Special summary on livestock, revised periodically covering period of years.
 - Pig crop and wool reports—issued semiannually; lamb crop reports—annually.
 - Periodic outlook reports on various livestock subjects.
 - Seasonal feeder reports.

Agricultural Marketing Service, United States Department of Agriculture

In addition to the reports issued jointly by the State Department of Agriculture through the California Cooperative Crop Reporting Service, the Agricultural Marketing Service issues reports on the acreage, yield, production, farm utilization, and sales of crops and livestock on a Nation-wide basis, usually with detailed data by States. The reports fall principally within the following broad classifications:

- Crop Reports on Cotton.
- General Crop Reports.
- Miscellaneous Crop Reports.
- Fruit and Vegetable Production Reports.
- Vegetable and Truck Crop Reports.
- Dairy Production Estimates.
- Poultry and Egg Production Estimates.
- Livestock Reports.
- Cold Storage Reports.
- Reports on Farm Labor and Wage Rates.
- Prices Received and Paid by Farmers.
- Reports on Manufactured Dairy Products.
- Cotton Grade and Staple Report (issued semimonthly during the cotton season).

Copies of these reports may be obtained from the Agricultural Marketing Service, Washington, D. C.

Bureau of Agricultural Economics

Reports issued by the Bureau of Agricultural Economics include:

- Outlook Reports (annually).
- The Agricultural Situation (monthly).
- The Demand and Price Situation.
- Individual Commodity Situation Reports.
- Special and Seasonal Reports by Commodities.

Copies of these reports are available from the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

See Market Enforcement, Marketing, Market News.

Crop Insurance



Information on wheat crop insurance is available at the office of the county farm advisor and at the office of the county agricultural conservation association.

Provisions of Program

Any person who has an interest as owner or tenant in a wheat crop may apply for insurance. An applicant may insure either 50 or 75 percent of the average yield of his wheat crop. The insurance covers losses from all natural hazards, such as drought, flood, wind, hail, fire, and disease.

Application for crop insurance must be filed prior to the established closing date, or prior to the seeding of wheat—whichever comes first. Premiums may be paid in wheat or in cash. Indemnities are paid in cash.

Application for crop insurance should be made at the office of the county agricultural conservation association.

If a crop loss occurs to the wheat insured, a notice of damage must be sent to the Crop Insurance Corporation at the office of the county agricultural conservation association.

See Agricultural Conservation Program.

Dairying



General Information

Information on the production of market milk and cream and on problems pertaining to feeding, breeding, and care of dairy cows, is available from the office of the county farm advisor. Special information on the feeding of concentrates and the use of fruit and fruit byproducts as dairy cattle feeds is available. Farmers' bulletins and circulars pertaining to dairying are available from the office of the county farm advisor.

Lists of proved sires in the United States are available from the Bureau of Dairy Industry, United States Department of Agriculture, Washington, D. C. Such lists are also on file in the office of the county farm advisor. Building plans for dairy structures which comply with the regulations of the Bureau of Dairy Service, State Department of Agriculture, may be obtained from the office of the county farm advisor or from the public service office of the Agricultural Extension Service, Berkeley.

California dairymen are welcome to visit the University Farm at Davis to see the experimental work under way in dairy husbandry.

Dairy Herd Improvement Associations (Cow Testing Associations)

The testing of cows for milk and butterfat production is carried on through Dairy Herd Improvement Associations in California as follows:

In the standard association testing, the tester visits the dairy once a month. The tester takes samples, makes analyses, and keeps records which are submitted to the county farm advisor's office.

In "circle testing" the dairyman takes his own samples

and delivers these to the cow tester. The tester makes the analyses of the samples, keeps records, and submits these to the county farm advisor's office. Records, showing the production of each cow in the herd, are computed by the tester and reported to the owner under both plans.

The charges for circle testing are usually less than for testing under the standard association plan. Conditions vary greatly throughout the State, both as to number of herds, mileage necessary in handling the work, etc., to the degree that no attempt is made to have standard charges per cow throughout the State. Charges also vary according to the size of herd, as it is possible to do the work more cheaply per cow in large herds than in small herds.

The Agricultural Extension Service helps to provide testers for the associations, supervises their work, keeps records of production and other data, and supplies this information, together with advice on feeding and management, to members of the associations. National records are kept by the Bureau of Dairy Industry, United States Department of Agriculture, Washington, D. C.

Advanced Registry and Herd Improvement Testing

Two forms of testing, the advanced registry and the herd improvement test, are available for the breeders of registered dairy cattle. Advanced registry is selective testing—the breeder may select certain animals in his herd to put on test. With the herd improvement test, commonly known as herd test, the whole herd must be tested. In both divisions these records are official. Write to the Division of Animal Husbandry, University Farm, Davis, for information.

Breeding

The Agricultural Extension Service assists farmers in locating and obtaining the use of sires suited for dairy herd improvement.

Assistance is given dairymen by the Agricultural Extension Service under the “permanent identification and life-time

record program" in the analysis of individual and herd production records for either purebreds or grades for the purpose of helping the dairyman in his breeding, culling, and feeding program.

The procedure involves:

Identification records of each individual in the herd.

Production records of all dams and daughters in the herd and, if available, the records of related individuals in the herd.

A proved sire record compiled by the Bureau of Dairy Industry, Washington, D. C., after five dam and daughter comparisons have been made.

A herd analysis compiled by the Bureau of Dairy Industry, Washington, D. C., and charted by the extension specialist in dairying, in Berkeley, after three proved sire records have been compiled for a herd.

Purebred animals for breeding purposes may be imported into the United States duty-free. For information, write the Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C. California regulations governing importing and exporting domestic animals may be obtained from the Bureau of Dairy Service, Sacramento.

Dairy Inspection

All dairies are required to conform to State law with respect to buildings, equipment, and sanitation. Information on these requirements may be obtained from the Bureau of Dairy Service, State Department of Agriculture, Sacramento.

Management Studies

Dairy management studies have at one time or another been conducted in most of the leading dairy counties in the State. Reports showing costs and returns in detail may be obtained at the office of the county farm advisor.

See Crop and Livestock Estimates; Feeding Stuffs (Commercial) for feeding of dairy cattle; Livestock Inspection and Disease Control for tuberculosis and other diseases, indemnities, regulations, hide and brand inspection, and meat inspection; Marketing; Market News.

Debt Adjustment

General Information

Debt adjustment service is available in every county through Farm Security Administration debt adjustment committees. A local debt adjustment committee meets with the debtor and his creditors. Although the committee has no legal authority to force an adjustment, it can often help the farmer and his creditors to work out a satisfactory agreement. All proceedings are held in strictest confidence.

Further information may be obtained from the office of the county farm advisor, the district or county Farm Security Administration office, or the following farm debt adjustment offices:

Regional and Northern California Office: 85 Second Street, San Francisco.

Southern California Office: 624 Black Building, Fourth and Hill Streets, Los Angeles.

See Loans; Relief.

Deciduous Fruits



General Information

Information on the production and marketing of deciduous fruits may be obtained from the office of the county farm advisor. Information is available on such problems as recommended varieties, sources of nursery stock, planting, fertilizers, cover cropping, spraying, pruning, thinning, irrigation, and marketing. Information on the acreage, production, shipment and prices, and on the economic outlook of the several fruit industries is available from the Farm Advisor. Demonstration meetings of approved methods and practices are held periodically in the fruit-growing areas. Publications on production and marketing problems of deciduous fruits may be obtained from the office of the county farm advisor and from the United States Department of Agriculture, Washington, D. C.

Enterprise Management Studies

Enterprise management studies have been conducted on most of the leading deciduous fruits. Reports on early studies are on file at the office of the county farm advisor. Studies on apricots, grapes, peaches, pears, and prunes are each currently available in one or more counties.

Federal and State Agricultural Marketing Programs

Information on agricultural marketing programs in California under various Federal and State laws is available at the office of the county farm advisor and from the State Department of Agriculture at Sacramento.

Information concerning deciduous fruit marketing programs which are operated under the (Federal) Agricultural Marketing Agreement Act of 1937, may also be obtained from the Surplus Marketing Administration (formerly Division of

Marketing and Marketing Agreements) of the United States Department of Agriculture, 112 Market Street, San Francisco.

Information on the deciduous fruit marketing programs which are operated under State legislation may also be obtained from the Bureau of Markets, State Department of Agriculture, Sacramento.

The spray residue remaining upon fruits offered for public sale must be within the tolerances established by the California State Department of Agriculture and the United States Food and Drug Administration. See Spray Residue.

See Agricultural Conservation Program for information on approved soil-conserving practices and rates of payment, Crop and Livestock Estimates, Grades and Standards, Marketing Programs for types of Federal marketing programs, Market Enforcement for bonding and licensing of produce dealers and processors, Market News, Nursery Licenses and Fruit Tree Registration, Quarantines.

Drainage and Alkali



General Information

Information on drainage and alkali problems may be obtained from the following:

County Farm Advisor's Office.

Division of Soils, University of California, Berkeley.

Division of Plant Nutrition, University of California, Berkeley.

Bureau of Plant Industry, Rubidoux Laboratory, Riverside.

Division of Irrigation, Soil Conservation Service, offices at Post Office and Court House, Los Angeles; Post Office Building, Pomona; and Post Office Building, Berkeley.

United States Department of Agriculture Regional Salinity Laboratory, Riverside.

Alkali and Water Analysis

Samples of "alkali" soil and irrigation water to be analyzed for private individuals should be sent to commercial laboratories. Soil and irrigation water samples submitted for analysis by farm advisors may be sent to the Division of Plant Nutrition, University of California, Berkeley. Irrigation water samples may be submitted for analysis by farm advisors to the University of California Citrus Experiment Station at Riverside. Samples of soil sent in for analysis by farm advisors should be limited to areas and situations where such analyses will definitely contribute worthwhile information on the problem of alkali salts. Samples should be taken by the farm advisor.

Drainage Districts

There are many hundreds of drainage districts organized throughout California. To obtain information on districts already organized, it is necessary to search the records of county boards of supervisors for such information, or it may be obtained from people residing within the area. There

is no central agency or board which has a complete record on the organization of such drainage districts.

Drainage districts are generally organized under one of three drainage district acts or they may also be organized by special action of the State legislature. At the present time it is necessary to obtain the approval of the Board of Public Works if a drainage district is organized under one of these three acts.

Drainage by Reclamation Districts; Irrigation Districts; Bureau of Reclamation and the Indian Service, of the United States Department of the Interior

Drainage is also carried on by State reclamation districts, by irrigation districts, by the United States Bureau of Reclamation in projects under its jurisdiction, and by the United States Indian Service.

An incomplete record of reclamation districts in California has been compiled and published by the California Debris Commission. Reclamation districts are usually organized under a State reclamation district board.

A record of irrigation districts may be obtained from the Department of Public Works, Sacramento, which publishes a complete annual statistical compilation of the activities of the districts.

The information about the United States Bureau of Reclamation projects may be obtained from:

The Central Valley Project with headquarters in Sacramento.

The All-American Canal, Yuma, Ariz.

The Orland Reclamation Project, Orland.

The Klamath Reclamation Project, Klamath Falls, Oreg.

Information and problems pertaining to Indian lands may be obtained from the headquarters office of Indian Service, Phelan Building, San Francisco.

See Irrigation and Water Supplies.

Experiment Stations and Farms in California and Principal Kinds of Agricultural Research



University of California—Agricultural Experiment Stations

The location and principal kinds of research of the experiment stations follow:

Berkeley. University campus. Experimental work under way in many different kinds of research affecting problems pertaining to soils, plants, animals, and human beings. Most of the work on farm livestock, except poultry, is carried on at Davis.

Davis. University farm. Experimental work is under way upon problems affecting farm livestock, field and forage crops, vegetables and fruits, except subtropicals. Investigations covering machinery used in the growing and harvesting of sugar beets.

El Centro. The Meloland Experiment Station is devoted largely to research production problems affecting the agriculture of Imperial Valley.

Georgetown (Eldorado County). Blodgett Forest. Research in problems pertaining to forest growth and management.

Riverside. A majority of the experimental work with citrus fruits is conducted at Riverside. A limited amount of work is conducted with other subtropical fruits and vegetables.

San Jose. Deciduous Fruit Station. Investigations are under way with deciduous fruits, berries, and some vegetables.

Westwood. Campus of University of California at Los Angeles. Experimental work limited largely to subtropical fruits, floriculture, and ornamentals.

United States Department of Agriculture

Albany. Western Regional Research Laboratory. Development of new uses for surplus agricultural crops in Western Region. Present headquarters at 15 Shattuck Square Building, Berkeley.

Alhambra. 1208 East Main Street. Truck crop insect investigations.

Bakersfield. Progressive Building. Cotton-quality statistics, cotton classification, and market news service on cotton.

Bard (Imperial County). Yuma Field Station. Crop-production problems under irrigation.

Berkeley. Post Office Building. Farm-irrigation investigations.

Berkeley. Giannini Hall. California Forest and Range Experiment Station. Studies and experiments to develop principles of forest, range, and watershed management; forest and flood-control surveys; and studies of forest products and economics.

Berkeley. Giannini Hall. Forest Insect Laboratory. Surveys and research of injurious forest insects, California region.

Berkeley. Giannini Hall. Blister Rust Control Laboratory. Laboratory and field tests of chemicals to develop practical methods for eradication of wild currant and gooseberry plants for control of white pine blister rust.

Biggs (Butte County). Rice Field Station. Rice production and breeding investigations.

Brawley (Imperial County). Lettuce and muskmelon disease investigations.

Chico. Plant introduction garden.

Fresno. Horticultural Field Station. Grape investigations and problems pertaining to production, breeding, diseases, and methods of handling, transportation, and storage of fruits and vegetables.

Fresno. Insect Laboratory, 712 Elizabeth Street. Investigations on dried-fruit insects.

Glendora. San Dimas Experimental Forest. Chaparral watershed management.

Halls Flat (Lassen County). Blacks Mountain Experimental Forest and Range. Forest management—ponderosa pine type. Management of mountain grazing lands in northeastern California.

Indio (Riverside County). Experimental Date Garden. Date production and breeding investigations and production problems of other subtropical fruits. Investigations in handling, transportation, and storage of citrus and other subtropical fruits.

La Jolla (San Diego County). Horticultural Field Station. Lettuce and muskmelon disease investigations.

Los Angeles. Laboratory of Fruit and Vegetable Chemistry, 148 South Mission Road. Fruit and vegetable utilization investigations.

Los Angeles. Post Office Building. Irrigation investigations in southern California.

Modesto. Insect Laboratory, 425 Santa Rita Avenue. Sugar-beet insect investigations.

Nice (Lake County). Insect Laboratory. Biology and control studies of the Clear Lake gnat.

Oakville (Napa County). Experimental vineyard, grape production, and breeding investigations.

O'Neals (Madera County). San Joaquin Experimental Range. Foothill range management and range animal husbandry (cattle) (in cooperation with the University of California).

Palo Alto. Stanford University. Stone fruit production and breeding investigations.

Pasadena. California Institute of Technology. (a) Length of day and growth development studies. (b) Laboratory investigations of sedimentation.

Placerville. Institute of Forest Genetics. Selection and breeding of forest trees for reforestation.

Pomona. Horticultural Laboratory, Federal Building. Crop production and breeding investigations, subtropical fruits; also methods of handling, transportation, and storage of subtropical fruits.

Pomona. Post Office Building. Frost-protection service.

Pomona. Post Office Building. Irrigation investigations.

Riverside. United States Regional Salinity Laboratory. Relation of salinity of irrigation water and soil conditions to plant growth.

Riverside. High School Building. Sugar-beet curly top control investigations.

Riverside. (Headquarters at the Citrus Experiment Station, Riverside.) Tests of erosion control vegetation (hill culture).

Sacramento. Federal Building. Walnut, almond, and filbert production and breeding investigations.

Sacramento. Federal Building. Laboratory investigations of alfalfa aphid, Hessian fly, and grasshoppers.

San Bernardino. Insect Laboratory, 1583 D Street. Control and eradication of peach mosaic.

San Francisco. Forest Pathology Laboratory, Phelan Building. Investigations of diseases of shade and forest trees and forest products.

Shafter. Cotton Field Station. Cotton breeding, improvement, and disease investigations.

Van Nuys. Farm-irrigation investigations.

Ventura. Investigations of bean insects and of wireworms.

Ventura. (Headquarters at the Soil Conservation Service office, Santa Paula.) Winter fallow land cultural practice investigations to control soil erosion on sloping land not irrigated and which is used for the production of annual summer crops.

Whittier. Insect Laboratory, 724 Earlham Drive. Investigations concerning insects affecting citrus fruits.

United States Department of the Interior

Berkeley. Giannini Hall. Forest-fauna research. Life history and habits of birds and mammals as related to grazing lands, forests, and forest reproduction.

Clear Lake (Modoc County). (Post Office Merrill, Oreg.) Clear Lake Bird Refuge. For protection of ducks, geese, and shore birds, pheasants, and quail.

Los Angeles. 203 Administration Building, Union Stock Yards. Laboratory and field investigations of diseases of fur bearers; study of the etiology of, and methods of preventing and curing these diseases.

Sacramento. 277 Federal Building. Food-habits research. Bird depredations in relation to fruit growing and other agricultural interests, and methods of control

Sacramento. 271 Federal Building. Control-methods research. Poisoning and trapping methods for the control of injurious rodents and predatory animals.

Tulelake (Siskiyou County). (Post office Merrill, Oreg.) Tulelake Wildlife Refuge. For protection of ducks, geese, and shore birds, pheasants, and quail.

Willows (Glenn County). Sacramento Migratory Waterfowl Refuge. For protection of ducks, geese, and shore birds, pheasants, and quail.

Department of Natural Resources, State Division of Fish and Game

Chino (San Bernardino County). Chino Game Farm.

Yountville (Napa County). Yountville Game Farm.

Many of the research projects which are being conducted by the University of California and the various agencies of the United States Department of Agriculture at the stations listed above are being conducted cooperatively between these agencies.

Farm Accounts and Enterprise-Management Studies

General Information

Information on farm bookkeeping and the analysis of the farm business is available at the office of the county farm advisor, as well as input, cost, return, and net income information on the leading crop and livestock enterprises. Suggestions for a full double-entry cost-accounting system may also be secured.

Farm Record Book

The California Farm Record Book (64 pages) provides facilities for keeping a year's financial record on a farm business as a whole. It is available at the Associated Students Store, University of California, Berkeley, for 77 cents postpaid. A copy may be inspected at the office of the county farm advisor.

Home Account Book

The home account book, containing a simple list of items on home and family expenditures, segregates expenditures, and provides a basis for analysis of income and outgo. It is available, without charge, from the office of the county farm advisor.

Complete Poultry Cost-Keeping Record

This book was prepared by the Agricultural Extension Service to make possible a complete and detailed analysis of a poultry enterprise similar to those resulting from enterprise-management studies. It is composed of 44 pages and is available from the Poultry Producers of Central California, 840 Battery Street, San Francisco, for 50 cents postpaid.

Enterprise Management Studies

An enterprise management study consists of the keeping of detailed cost and income records under the supervision of the Agricultural Extension Service on a single crop or livestock enterprise by a group of producers in a county or region. These records are summarized, and the resulting information is made available in mimeographed form at the office of the county farm advisor conducting the study. A study will be carried on wherever a group of at least 10 producers in a county or region of a few adjacent counties pledge themselves to participate over a period of years. Studies on 45 different crop and livestock enterprises have been completed in one or more of the 42 counties having farm advisors since 1925, making a total of about 1,000 studies comprising 15,000 enterprise records. Studies currently available are mentioned elsewhere under the commodity groups covered. These studies furnish current information on physical inputs, yields, costs, returns, net income, and management for the enterprises covered.

Farm Labor



General Information

Information concerning the status of agricultural crops with respect to farm labor requirements throughout California, the farm labor demand, and the farm labor supply is available from the California State Department of Employment, 1025 P Street, Sacramento, or from the 78 employment offices maintained by it. This information is issued during the harvest season as a weekly report which covers counties, crops, acreage, types of current labor, labor shortages and surpluses, going rates of pay, housing facilities, and other pertinent information.

Placement of Farm Labor

The State Department of Employment operates on the basis of employer requests for labor. Laborers are classified as to their qualifications. Orders for workers are filled locally if possible, and if not possible, through inter-office clearance. There is no charge for this service, either to the employer or to the worker.

Three informational centers located near Indio, near Bakersfield, and on the west side of Pacheco Pass are maintained for the benefit of migrant laborers. These are in addition to the 78 employment offices which the State Department of Employment maintains. The purpose of the informational centers is to guide migrant labor and also to furnish information to farmers on the availability of farm labor.

Housing

Information concerning labor housing-and-sanitation requirements and a copy of that portion of the Labor Code entitled "Requirements for Labor Camps" (Labor Code Stat.

1937, art. 4, ch. 1, pt. 9, div. II) may be obtained from the State Division of Immigration and Housing, 305 California Building, San Francisco (or from 725 Forum Building, Sacramento, or 505 State Building, Los Angeles, or 503 Helm Building, Fresno). If five or more men are employed on a farm, inspection of housing and sanitation facilities is mandatory under the Labor Code. Any person operating or contemplating the operation of a labor camp may receive official advice from an inspector by writing a letter to the nearest office of the Division, requesting an inspector to call.

Compensation Insurance

The California Workmen's Compensation Insurance laws provide that: (1) An employer engaged in farming, whose pay roll is less than \$500 annually including all emoluments such as board and lodging, is not compelled to take out a compensation insurance policy, but in case of an accident the employer may lack the protection which such a policy affords; (2) if the pay roll exceeds \$500 annually, the employer must either (a) procure Workmen's Compensation insurance or (b) file notice of rejection with the Industrial Accident Commission.

Information concerning Workmen's Compensation Insurance, including premium rates, may be obtained from any of the following Compensation Insurance Fund offices: San Francisco (head office), 450 McAllister Street; Chico, 1038 Esplanade; Fresno, 1157 Fulton Street; Long Beach, 205 East Broadway; Los Angeles, 501 State Building, Civic Center; Oakland, 1540 San Pablo Avenue; Sacramento, 1107 Ninth Street; San Diego, 1122 Fourth Avenue; San Jose, 20 West Santa Clara Street; Santa Barbara, 831 State Street; Santa Rosa, 542 College Avenue; Stockton, 343 East Main Street.

Information concerning accidents to workmen may be obtained from the Industrial Accident Commission, State Building, Civic Center, San Francisco.

Unemployment Insurance

Agricultural workers are not generally covered by unemployment insurance. However, certain persons employed on a farm may be subject to the Unemployment Insurance Act. Information may be obtained from the State Department of Employment.

See Buildings and Engineering for construction of bunk houses; Farm Accounts and Enterprise-Management Studies for labor and cost records in crop production.

Feeding Stuffs (Commercial)

General Information

Information, including bulletins and circulars, on the feeding of livestock is available from the office of the county farm advisor.

Assistance in the calculation of feeding rations for livestock—including beef cattle, dairy cattle, sheep, hogs, and poultry—is available from the office of the county farm advisor.

Commercial Feeding Stuffs Standards

Commercial feeding stuffs include: All feeding stuffs and concentrates used for feeding livestock and poultry, except whole seeds or grains, whole hays, straws, and other minor items. These are subject to certain specific standards fixed by the director of the State Department of Agriculture.

Every lot of commercial feeding stuffs must bear a label indicating its constituents. Sellers, manufacturers, processors, or distributors of commercial feeding stuffs must be licensed, and manufacturers and other dealers must also pay a tonnage tax (4 cents per ton).

The purpose of these provisions of the Agricultural Code (ch. 7a, div. V) is to protect growers against inferior and mislabeled feeding stuffs.

For detailed information on requirements of the law and regulations thereunder, interested persons should communicate with the Chief of the Bureau of Field Crops, State Department of Agriculture, at Sacramento.

Fertilizers and Soil Amendments

General Information

Information is available from the office of the county farm advisor on the selection and application of fertilizers to farm crops in practically all agricultural sections of California. This information is based in large part upon many field trials with various kinds of fertilizers and soil amendments. The results which have been obtained show a variation in fertilizer requirements. The soils in California vary widely and their responses to applications of fertilizers vary almost as widely. Economic crop responses are obtained rather widely from the application of nitrogen. Only in limited areas are economic crop responses obtained from the addition of some of the other commercial fertilizer elements and from the application of some of the soil amendments, including sulfur, lime, and gypsum.

Analysis of Commercial Fertilizers

The State Department of Agriculture, Bureau of Chemistry, is responsible for the enforcement of the commercial fertilizer provisions of the Agricultural Code (secs. 1021-1043) making analyses of those materials offered for public sale, to establish conformance. Questions pertaining to the deficiencies in fertilizers and agricultural minerals should, therefore, be directed to this agency, at Sacramento.

Agricultural Conservation Program

The application of potash, phosphoric acid, gypsum, and sulfur qualify as soil-conserving practices in the 1940 program. The application of nitrogen, potash, and phosphoric acid, and lime qualify as soil-conserving practices under the 1940 Sugar Act program. Information may be obtained from the office of the county farm advisor or the agricultural conservation association office concerning specific fertilizer application practice requirements.

See Agricultural Conservation Program; Soils.

Field and Forage Crops

General Information

Information on field and forage crops may be obtained from the office of the county farm advisor, or from the United States Department of Agriculture, Washington, D. C. Information is available on recommended varieties, rates of seeding, fertilizers, soil amendments, cultural practices, weed control, harvesting, storage, marketing, cropping systems and rotations, and other related subjects. Test and demonstration field plots are conducted, and field meetings of growers are held by the county farm advisor and staff to discuss field and forage crop problems.

Pasture Improvement Program

The Agricultural Extension Service is conducting a State-wide pasture-improvement program. An extensive series of variety tests with range grasses is under way in the range areas of California. Grass trials are also being conducted in the development of irrigated pastures in California.

Experiment Stations and Farms

Experimental work on field and forage crops is being carried on by the University of California and by the United States Department of Agriculture at a number of experiment stations and farms throughout California. See Experiment Stations and Farms, etc.

Management Studies

Enterprise management studies have been conducted on a number of California's leading field crops. Studies are currently being conducted on beans, cotton, grain, hay, irrigated pasture, potatoes, and sugar beets. Earlier studies on alfalfa, flax, hops, rice, silage, and sweet potatoes may be studied at the office of the county farm advisor.

See Crop and Livestock Estimates; Grades and Standards; Quarantines; Range; Seeds.

Fire Protection

General Information

Information on fire-fighting equipment is available from the Extension Specialist in Forestry, Berkeley; the State Forester, Sacramento; the Regional Forester, United States Forest Service, San Francisco; and from the State and Federal forest rangers, and county fire wardens.

Rural Fire Districts and Rural Fire Fighting

The organization and maintenance of Rural Fire Districts for fire prevention and control in rural areas is organized under State legislative acts of 1881, 1923, and 1931. Most of these districts are set up under jurisdiction of (a) a fire commission, (b) board of directors, or (c) the county board of supervisors.

Fire Control and Protection in Forest and Watershed Areas

The State Division of Forestry has charge of forest-fire protection activities outside national forest protection boundaries in all counties, except five. In Santa Barbara, Ventura, Los Angeles, and San Mateo, the county authorities, and in Marin County the Tamalpais forest-fire district, in cooperation with the State Division of Forestry have provided their own fire protection organization.

The Forest Land Fire Patrol Act of California, sometimes called the compulsory patrol law, requires that owners of forest lands, except redwood lands, protect these lands from fire or pay the State a maximum fee of 2 cents per acre to compensate the State Division of Forestry for protecting them. Inquiries should be addressed to the State Forester, Sacramento.

The Clarke-McNary law provides that the Federal Gov-

ernment to the extent of annual congressional appropriations, shall cooperate with the State Division of Forestry in the protection of State- and privately-owned forest lands or watersheds from which water is secured for domestic use or irrigation.

The State Division of Forestry is charged with the protection of the State parks from fire.

The United States Forest Service protects areas within the national forests; the National Park Service protects the national parks; and both cooperate with the State Division of Forestry in protecting areas adjacent to their boundaries.

Fire-Weather Forecasts and Reports

Fire-weather forecasts are made by the United States Weather Bureau and are disseminated by radio and otherwise during the season of high fire hazard to all fire-protection agencies. See Weather.

Meetings and Institutes on Fire Prevention and Control

The display of new equipment and new methods of fire fighting are demonstrated each spring at central locations for forest rangers, members of rural fire departments, and forest officials. They are held under joint auspices of the Agricultural Extension Service, University of California; the State Division of Forestry; and the United States Forest Service.

Rural fire protection demonstrations are held by the Agricultural Extension Service in rural communities, generally at schools, to emphasize fire protection and control.

See Forestry and Windbreaks; Range; Weather.

Flowers and Floriculture

General Information

Information on the culture of flowers, both for the home garden and for commercial production, may be obtained from the office of the county farm advisor.

Research work on ornamental horticulture covering problems pertaining to insect pests, plant diseases, and breeding and genetics, is being conducted on the campus of the University of California at Los Angeles.

Publications on the growing of flowers and ornamental plants are available from the office of the county farm advisor and from the United States Department of Agriculture, Washington, D. C.

Garden shows are held annually or periodically throughout California. Many of them are under the auspices of the California Federation of Garden Clubs in cooperation with local communities, and in many cases are supported by public funds. These garden shows are excellent sources of information because of variety of material shown by expert growers.

See Gardening; Insect Control; Landscape Gardening; Plant Diseases; Quarantines.

Forestry and Windbreaks



General Information

Information on varieties of trees for windbreaks, wood-lot planting and management, insect and disease problems, the treatment of farm timbers and fence posts, rodent control, and forest products problems, may be obtained from the office of the county farm advisor; the Extension Specialist in Forestry, University of California, Berkeley; and from the State Division of Forestry, Sacramento.

Sources of Planting Stock

Sources of planting stock for farm woodlands, and windbreaks are:

(1) State Nursery, State Division of Forestry, at Davis, at a price of \$5 for seedlings, and \$10 for transplants, per 1,000 for bare-rooted stock. This stock is to be available beginning in the spring of 1941. Application for stock should be made through the county farm advisor.

(2) Demonstration farms located in Soil Conservation Service project areas may receive seedling trees from nurseries maintained by the Soil Conservation Service.

Farm Woodland Management

The Agricultural Extension Service offers planting demonstrations and instructions on the handling or management of forest lands, including thinning, pruning of trees, erosion control, and fire protection. Requests for service on wood-lot management should be made to the county farm advisor or the extension specialist in forestry.

Demonstration Forests and Forestry Projects

Farm Forestry Projects have been established in Sonoma County where agriculture is influenced by the use of inter-

mingled redwood lands, and in Eldorado County where farming is carried on within some of the finest second-growth pine forest in California. These projects are being established by the Soil Conservation Service under the guidance of the California Farm Forestry Committee.

Demonstration forests showing forest utilization have been established at Whitaker's Forest in Tulare County, at the Howard Forest in Mendocino County, and at Blodgett Forest in Eldorado County. These properties are owned and operated by the University of California.

National Forests

Information on the 18 national forests in California can be obtained from the supervisors of the forests or the Regional Forester, 760 Market Street, San Francisco.

In administering these forests all land is to be devoted to the most productive use for the permanent good of the whole people.

Ripe standing timber is sold at a fair price except where the trees have a higher value for specific recreational or other uses. This timber is sold under conditions which will insure future productiveness of the stands to act as permanent reservoirs for wood and work. The farmers and other residents may obtain permits for free timber for their own use for such domestic purposes as firewood, fencing, and building, where the taking of such material aids in the protection and improvement of the forest. They may also obtain higher grade material when needed by paying the cost of making the sale.

Along with timber in the national forests is a great deal of grazing land. Resident settlers and stockmen are given first consideration in the granting of grazing privileges. Each permit specifies the number of stock which may be grazed during a stated period and the portion of the forest on which they are to be grazed.

There are 36 State game refuges totaling over two million acres and two Federal game refuges totaling nearly 50,000 acres inside the National Forests of California. In general,

the only restrictions on hunting and fishing are those imposed by the fish and game laws of the State.

The national forests offer unrivaled opportunities for outdoor life and enjoyment to campers, sportsmen, and seekers after health, rest, and recreation. In the 18 national forests in California there are more than 1,000 developed campgrounds and 10,000 miles of trails for the use of the general public.

State Forests

Las Posadas State Forest, near St. Helena, has a fine natural collection of plants of the north coast ranges, thinned forest stands, a forest plantation and a camp site for 4-H club members.

County Forests

Los Angeles, Santa Barbara, Orange, Tulare, San Francisco, and other counties are developing forest properties—usually for recreation purposes.

Investigations

Forestry research is carried on by the California Forest and Range Experiment Station of the United States Forest Service, and by the Agricultural Experiment Station, University of California, Berkeley. Cooperating agencies include the United States Bureau of Entomology and Plant Quarantine, Division of Forest Pathology of the United States Bureau of Plant Industry, and the Fish and Wildlife Service (Biological Survey) of the United States Department of the Interior.

See Agricultural Conservation Program for forestry practices; Experiment Stations and Farms for experimental work in forestry; Fire Protection for fire control and protection in forest and brushland areas; Wildlife.

4-H Clubs



General Information

4-H Club work is a voluntary out-of-school activity conducted by the United States Department of Agriculture and the University of California, College of Agriculture. Every farm boy or girl in California between the ages of 10 and 20 may join a 4-H club. 4-H clubs have been organized in 42 rural counties of California. Ask the county farm advisor or the home demonstration agent for detailed information.

Requirements

Each enrolled member is required to conduct a demonstration of an approved practice in agriculture or home economics under guidance of competent adult leaders. A record must be kept of the work and a report made to the county farm advisor.

Projects and Activities

Among the most popular 4-H club projects in California are dairy, swine, sheep, poultry, gardening, clothing, and room improvement.

Club activities include meetings, achievement days, tours, public demonstrations, exhibits, camps, picnics, trips, and the like.

The four H's stand for the Head, Heart, Hand, and Health. The motto for 4-H club work is, "Make the Best Better."

Future Farmers

General Information

The Future Farmers of America is the official organization for boys who are enrolled in vocational agriculture in secondary schools. Future Farmer activities include the home farm enterprise program, public speaking, judging, exhibiting at fairs, and a variety of school and community services.

Future Farmer training includes a home agricultural project which is a part of such secondary school training, the conduct of which is supervised by the vocational agriculture teacher.

Future Farmer projects are frequently on a large enough scale as to assist boys to become fully established farmers upon graduation from school.

The motto of the Future Farmers is: "Learning to Do, Doing to Learn, Earning to Live, Living to Serve."

Information about the Future Farmers and the California Young Farmers' Association may be obtained from any secondary school vocational agriculture teacher, or from the Bureau of Agricultural Education, California Polytechnic School, San Luis Obispo.

Organization

The local unit of Future Farmers is the chapter located at the high school or junior college. There is a State association of Future Farmers, with the chief of the State bureau of agricultural education as State adviser. The national association centers in the United States Office of Education of the Federal Security Agency in Washington, D. C.

The California Young Farmers' Association is composed of young men between the high-school age and the age at which they prefer to affiliate with an adult farm organization. Each Young Farmer group is located in a district where vocational agriculture is taught, and the vocational teacher in the high school or junior college is adviser for the group.

See Agricultural Education; Information.

Gardening

General Information

Information on gardening, including varieties best adapted to local conditions, time of planting, and cultural practices, may be obtained from the office of the county farm advisor. Leaflets on home gardening and the production of food for family living are available in many of the counties. These and other circulars and bulletins are available without charge.

A correspondence course on vegetable gardening is available from the Agricultural Extension Service, University of California, Berkeley.

Community Gardens

Information on the planning and care of community gardens for the unemployed, and vegetable gardens for public institutions, is available from the office of the county farm advisor.

See Homemaking; Insect Control; Plant Diseases.

Grades and Standards

Grades and standards are established by the State and Federal Governments. State "standards" usually refers to the minimum quality allowable for sale. "Grades" refers to the quality divisions of the commodity. Some grades are mandatory under certain conditions of sale. Most grades are permissive, i. e., established for the convenience of the industry. Tentative grades may be set up for temporary use, pending the establishment of official grades of a permissive or mandatory character. Produce handlers and dealers frequently use grades which they themselves have established.

Federal Services Rendered

The Agricultural Marketing Service of the United State Department of Agriculture performs the standardization, grading, and inspection functions in connection with the marketing of agricultural products under United States grades. This grading and standardization are for the most part on the basis of United States grades and standards. Standards have been established for cotton, grain, tobacco, livestock, meats, 57 of the fruits and vegetables, and for many other farm products. Some of these are mandatory if the products are sold by grade and shipped in interstate or foreign commerce. This is true for grain and cotton. Grading and/or inspection, varying in extent as between commodities, are conducted on both fresh and canned fruits and vegetables, dairy and poultry, products, meats, wool, grain, hay, beans, rice, cotton, tobacco, peanuts, pecans, walnuts, honey, maple syrup, and other products. In the case of meats, poultry, eggs, and butter, programs have been developed for carrying the official grade designation through trade channels to the consumer. The grading services on butter, cheese, eggs, and dressed poultry,

and the inspection services on fresh fruits and vegetables are conducted in cooperation with the State Department of Agriculture, except that inspection of shipments received in interstate commerce are conducted by the Federal Department of Agriculture. Inspection services on canned, frozen, and dried fruits and vegetables are conducted by the United States Department of Agriculture at certain points in the State.

Free classing of cotton is available to groups of farmers organized to promote the improvement of their cotton. Application forms and information may be obtained from the county farm advisor or the Agricultural Marketing Service, 210 Progressive Building, Bakersfield.

State Services Rendered

State grades and standards are administered by the State Department of Agriculture under three bureaus, and by other State departments as outlined:

1. The Bureau of Shipping Point Inspection, State Department of Agriculture, Sacramento, in cooperation with the United States Department of Agriculture, operates the voluntary Federal-State shipping point inspection service issuing certificates, for a fee, showing the grade and quality of lots of fresh and natural-condition dried fruits and vegetables. Many lots of fruits and vegetables shipped to eastern markets are sold on the basis of this Federal-State grade certificate. These services are available upon request addressed to the Bureau of Shipping Point Inspection.

2. The Bureau of Field Crops of the State Department of Agriculture at Sacramento certifies as to the grade and quality of hay, grains (barley, rice, corn, etc.) and other field crops. A fee is charged for the certification. Many buyers of these commodities buy from producers on the grade, and dealers also sell on the grade established. The grades are United States grades, for products for which United States grades have been established, or they are specific State grades, the latter being authorized by the Agricultural Code. Interested

persons wishing grade certificates on field crops should communicate with the Bureau of Field Crops.

3. The Bureau of Fruit and Vegetable Standardization of the State Department of Agriculture, and the county agricultural commissioner, administer the provisions of the Agricultural Code providing for minimum grades and standards on certain fruits, vegetables, honey, and eggs.

Standards, requiring commodities to meet a certain minimum size, quality, or condition, are established by law:

Fresh fruits, nuts, and vegetables.—The provisions of the Agricultural Code establish minimum requirements for apricots, avocados, berries, cherries, citrus fruits, dates, grapes, peaches, pears, oriental persimmons, plums, and fresh prunes, "wonderful" pomegranates, quinces, walnuts, artichokes, asparagus, Brussels sprouts, cantaloupes, carrots, cauliflower, celery, head lettuce, melons, onions, peas, potatoes, sweetpotatoes, tomatoes, and apples. In order to move in channels of trade for human consumption, these must meet the minimum requirements as to defects and maturity. They also must not be mislabeled or deceptively packed. Standards for containers are also established. Permission for moving substandard products under permit to byproducts factories is required.

Eggs in the shell.—Eggs in the shell must meet certain minimum standards of quality (Agricultural Code, art. 1, ch. 8 of div. V). Egg sizes and grades are established and containers of eggs must be marked to comply. Inedible eggs are defined. Mislabeling is made unlawful. The State Department of Agriculture or the county agricultural commissioner should be consulted for details. (Cooperative enforcement by the State Department of Public Health is authorized. For egg products, see item 8 below.)

Honey.—The Agricultural Code (ch. 2a of div. V) establishes minimum standards for honey, standards for containers, color classification, labeling requirements, etc. Comb and extracted honey must be graded according to and shall meet the requirements of United States grades. The State Department of Agriculture and the county agricultural commissioner are responsible for the enforcement of honey standards. These agencies should be consulted for further details.

4. Canned fruits and vegetables, including olives.—Certain canned fruits and vegetables, including olives, packed in tin or glass containers must meet certain established standards of quality, condition and/or fill of container and requirements

for markings, in accordance with the Agricultural Code (ch. 3, div. V). Most of these standards are in accordance with those established by the Secretary of Agriculture, and are enforced in California by the State Department of Public Health, which agency should be contacted for further information.

5. Wine-grape testing.—Grapes bought for wine or other grape byproducts purposes, when purchased on the basis of sugar content, must be tested in accordance with chapter 1b, division V of the Agricultural Code. The purpose is to prevent fraud and deception in transactions involving the sale of fresh grapes for byproducts purposes. County agricultural commissioners make these tests in accordance with rules and regulations established by the director. A fee is charged, based upon a schedule established by the board of supervisors of each county. Certificates are issued showing the true average of soluble solids tests of the grapes delivered. For further information, consult the county agricultural commissioner.

6. Canning tomatoes.—Chapter 1a, division V, of the Agricultural Code specifies what types of tomatoes shall be suitable for canning purposes. The purpose is to merely establish a contract basis for the purchase and sale of canning tomatoes. Information is available from the State Department of Agriculture.

7. Nursery stock grades and standards.—Chapter 9, division V, of the Agricultural Code requires that nursery stock of the type and kind mentioned in the code shall be labeled to show the true name and the grade size. For further information, contact the Bureau of Nursery Service, State Department of Agriculture, Sacramento.

8. Egg products.—Egg-products enforcement, covering liquid, frozen, and dried eggs and other eggs destined for consumption, is vested exclusively in the State Department of Public Health.

Homemaking

General Information

Information on problems related to rural homes and home life is available from the home demonstration agent (located in the office of the county farm advisor) in 30 counties in California. In counties without a home demonstration agent, requests for information should be directed to the county farm advisor or to the State Home Demonstration Leader, University of California, Berkeley.

Useful publications on many homemaking subjects are available, free, upon request directed to the county home demonstration agent; to the county farm advisor; to the Agricultural Extension Service, Berkeley; or to the Bureau of Home Economics, United States Department of Agriculture, Washington, D. C.

Assistance is available from the home demonstration agent in planning for the following:

1. Better living from the farm by the production of food for home use. Improved methods in preservation and storage of food.
2. Health of rural families through adequate nutrition, mental attitudes, and other good health habits, home and community sanitation, infant and preschool-child clinics, physical examination of school children, safety in the home, home nursing, and cooperation with health agencies in promoting community and county health interest.
3. Proper preparation and serving of food in relation to health, variety in diet, economy of money, time, and energy, attractiveness and sociability; food for different ages and special conditions, including school lunches.
4. Clothing the family comfortably and attractively, considering economic, aesthetic, and health phases of clothing.
5. Improved rural housing through plans for building and

remodeling dwellings and other farm buildings, lighting, heating, insulation, air-conditioning, room arrangement, water in the home, storage, selection, care, and renovation of furniture and furnishings.

6. Management of time, energy, and money. Time and energy management through careful planning, use of proper equipment, and adopting approved household practices. Consumer education in buying foods, clothing, household equipment, and furnishings. Use of money in record keeping, outlook, family financial management.

7. Successful family life through parent education and child development. Understanding and handling health, behavior, educational, and social problems of children and youth. Adjustments in homes to safeguard individual well-being and good family relationships.

8. Beautification of home and farmstead by inexpensive but attractive furnishings, and improvement of farm-home surroundings with lawns, trees, and shrubbery. Art in everyday life is a matter of knowing and feeling good design, line, and color, as much as a matter of expenditure of money.

9. Recreation in home and community. Resourcefulness of rural people is stimulated to provide interesting and enjoyable recreation in home and community, especially in the interest of young people. Cultural interests are encouraged, such as appreciation of good music and reading.

10. Community activities. The home demonstration program includes community interests which require united action of community groups or members of a group for accomplishment. Rural electrification, clubhouses, rural libraries, improvement of school grounds, hot school lunches, group discussion of timely agricultural and home problems, meetings of interest to both rural and urban people, organized recreation for young people, all are community interests of today.

Farm Home Departments

Demonstration meetings with groups of farm people are held by the home demonstration agent at frequent intervals.

These meetings are held in a farm home, or in a school or other public meeting place. Much of the work of the home demonstration agent is sponsored by the farm home department, an association of Farm Bureau women, but is available and free to all farm families. The activities of the farm home department include:

Presentation of subject matter on items as listed above (1 to 10 inclusive).

Recreation activities, including camps, farm bureau chorus, home department luncheons, hi-jinks and play days, 4-H clubs and home recreation.

School lunches (in some counties)—the home demonstration agent assisting.

Cooperation with other agencies.

Health

Information for expectant mothers on prenatal care, and the care of children, may be obtained also from the State Bureau of Child Hygiene, State Building, Civic Center, San Francisco; from the county public health officer; and from the county public health nurse.

Information on the examination of school children for tuberculosis, may be obtained from the California Tuberculosis Association, the Red Cross, the county public health officer, and the county public health nurse.

Information on the immunization of children against children's diseases is available from the county public health officer; the county public health nurse, etc.

Medical care for farm people: Information on hospitalization and medical care may be obtained from the county home demonstration agent, the county farm bureau, the county public health officer, and the county public health nurse.

For Clients of the Farm Security Administration

Families of low income who receive rehabilitation loans from the Farm Security Administration agree to follow a farm-and-home management plan. Such families receive

supervision and assistance in improvement of health and dietary standards through aid in the production of more and better foods at home, improved home practices in storage and preservation of foods, clothing, etc., from the home management supervisors employed by the Farm Security Administration. Inquiries should be directed to the local office of the Farm Security Administration.

Clients of the Farm Security Administration are welcome and urged to attend demonstration meetings conducted by the county home demonstration agent, and are invited (as any farm woman is), to visit the office of the county home demonstration agent for assistance.

See Rural Electrification for electricity on the farm.

Information



General Information

Information on farm problems such as fertilizers, seed treatment, the pruning and spraying of fruit trees, and the feeding and care of livestock may be obtained from the office of the county farm advisor.

Information to settlers on the possibilities and limitations of farming in California is available from the Agricultural Extension Service, University of California, Berkeley. Specific information regarding farming conditions in any particular area is available from the office of the farm advisor in the county where the land is located.

Publications

Publications dealing with the culture of practically all of the crops grown commercially in California may be obtained from the office of the county farm advisor. A list of United States Department of Agriculture publications is available from the Division of Publications, Office of Information, Department of Agriculture, Washington, D. C. A list of University of California, College of Agriculture, publications that are available for distribution may be obtained from the College of Agriculture, Berkeley. The bulletin of the State Department of Agriculture, Sacramento, and certain special publications are available from that agency.

Field Meetings, Tours, and Other Meetings

Tours, field meetings, and other meetings are conducted frequently by the county farm advisor and staff for the purpose of presenting new and pertinent information to farm people. Farm Bureau centers and meetings of groups of farm people offer opportunities for discussion of farm

problems and for the presentation of new information. The Agricultural Extension Service, representing the University of California and the United States Department of Agriculture, presents educational material for public discussion. Information on meetings and tours may be obtained from the office of the county farm advisor.

Radio Programs on Agriculture

Federal-State Market News is given daily except Sunday over 18 commercial radio stations throughout California at various times during the day. Information concerning the time at which these broadcasts occur may be obtained from the office of the county farm advisor or from the local radio station.

The National Farm and Home Hour is a general entertainment and informational program for agriculture given daily over the national Blue Network of NBC. The program from Monday through Friday is arranged and presented by the United States Department of Agriculture in cooperation with NBC, and is participated in by the land-grant colleges with a monthly college program and a monthly program reporting on some phase of home demonstration work. On the first Saturday of each month a 4-H club program is presented by the Department in cooperation with the Extension Services of the land-grant colleges. The program on the second, third, and fourth Saturdays is presented by the National Farm Organizations and NBC. The National Farm and Home Hour is broadcast in California over 4 stations: KGO, San Francisco; KFBK, Sacramento; KFSD, San Diego; KWG Stockton; and KERN Bakersfield. The time of broadcasting on Monday through Friday is 8:30 to 9:15 a. m., and on Saturday, 8:30 to 9:30 a. m., Pacific Standard Time, during the summer months. Beginning in October the time of broadcasting on Monday through Friday is 9:30 to 10:15 a. m., and on Saturday 9:30 to 10:30 a. m., Pacific Standard Time.

Western Agriculture, a regional farm program, is broadcast

daily, Monday through Friday, at 7:00 to 7:15 a. m., over stations associated with the NBC western Red Network by the Department of Agriculture and land-grant colleges of the Western States in cooperation with the National Broadcasting Company. California stations releasing this program are KFI, Los Angeles; and KPO, San Francisco.

See Agricultural Education; Information; Experiment Stations and Farms.

Insect Control



General Information

Information on the identification and control of insect pests may be obtained from the office of the county farm advisor or from the county agricultural commissioner. Specimens of insects may be sent for identification to the Entomology Division, College of Agriculture, Berkeley, or to the Bureau of Entomology and Plant Quarantine, State Department of Agriculture, Sacramento.

Control of insect pests is of importance in the successful production of a crop. Control measures for most of the insect pests in California are outlined in circulars and bulletins available from the office of the county farm advisor.

Inspection of Seeds and Nursery and Greenhouse Stock

Inspection of seeds, plants, and nursery stock is under the jurisdiction of the county agricultural commissioner and the State Department of Agriculture, and inquiries concerning inspection service and inspection requirements should be addressed to the office of the county agricultural commissioner or to the State Department of Agriculture.

Pest Abatement

Laws requiring abatement of insect pests are administered by the county agricultural commissioner. "Pest" as defined in the Agricultural Code (sec. 100) includes insect pests, plant diseases, weeds, injurious rodents, and other pest animals.

Treatments of Farm Products for Pest Control

Information on treatments of outgoing shipments of farm products for the purpose of eliminating insect infestation, required by other States or foreign countries, is available from the State Department of Agriculture.

See Nursery Licenses and Fruit-Tree Registration; Plant Diseases; Quarantines.

Irrigation and Water Supplies

General Information

Information on irrigation, including problems pertaining to overhead irrigation, contour irrigation, irrigation by flooding in borders or checks, construction of farm reservoirs, pumping equipment, pump purchase contracts, and the adequacy and quality of pump water supplies and surface water supplies, is available from the office of the county farm advisor.

Information concerning the availability of water from reservoirs under construction under the Central Valleys Water Project for the irrigation of land in the Sacramento and San Joaquin Valleys may be obtained from the United States Bureau of Reclamation, Sacramento.

Cost Data on Pumping

Cost data on pumping irrigation water by electricity or by internal combustion engines, and data on electric-power rate schedules are available from the office of the county farm advisor.

Data on Water Supplies

Climatological data, including rainfall records, are available from the United States Weather Bureau, San Francisco.

Forecasts of the availability of irrigation water, based upon surveys of snow conditions in the mountain areas of California, are made by the Division of Water Resources, Department of Public Works, Sacramento, and are issued during the spring months, from February 1 to May 1.

Stream-flow data have been compiled for many of the larger streams in California for a period of many years by the Water Resources Branch of the United States Geological Survey, in cooperation with other public agencies. Forty water supply papers have been issued concerning stream-

flow data in California, and these reports are on file in public libraries, offices of hydraulic engineers, and State and Federal offices dealing with water supply and flood control.

Underground-water data have been compiled, and 30 water supply papers have been issued on underground waters in California by the Water Resources Branch of the United States Geological Survey. Underground-water studies have also been made in many areas by the Division of Water Resources, Department of Public Works. A catalog of the publications of the Division of Water Resources may be obtained from the Supervisor of Documents, State Capitol, Sacramento. Copies of these publications are also on file in the larger public libraries.

Quality of Surface Waters

Most of the surface supplies of water in California are of good quality for irrigation, but in limited areas and in some areas during limited periods of time surface waters become saline and are therefore not very good for this purpose. A saline report and forecast for the Delta district is prepared during the summer months by the Division of Water Resources, Department of Public Works. Information on the salinity and boron content of water, particularly for some of the areas in southern California, is available from the University of California Citrus Experiment Station at Riverside, the office of the county farm advisor, and the Division of Irrigation Agriculture, Rubidoux Laboratory, Riverside.

Quality of Underground Waters

The quality of underground waters is in certain areas affected by the presence of saline salts. This is of importance because of its effect upon plant growth. Salt-water infiltrations, especially near the ocean and in delta areas, have occurred to a limited extent, especially during seasons or periods of below-normal stream flow. Also, in certain

localities underground waters are naturally saline to varying degrees.

Information concerning the quality of underground waters may be obtained from the office of the county farm advisor, and from the United States Geological Survey, with offices in the Federal Office Building, San Francisco, and in the Post Office and Court House, Los Angeles. For areas in southern California, information is also available from the University of California Citrus Experiment Station, Riverside, and from the Division of Irrigation Agriculture, Rubidoux Laboratory, Riverside.

Floods and Flood Control

Information and data on floods and flood control may be obtained from the United States Weather Bureau, San Francisco; the Division of Water Resources, Department of Public Works, Sacramento; the United States Geological Survey, Federal Office Building, San Francisco; and the United States Engineers Office, War Department, division administrative office, 351 California Street, San Francisco, or district offices at 208 Post Office Building, Sacramento; Custom House, San Francisco; or 751 Figueroa Street, Los Angeles.

Irrigation District Reports

Numerous bulletins on the operations of irrigation districts and the cost of irrigation water in California have been issued by the Division of Water Resources. Copies are on file in the office of the Division of Water Resources, and in the office of the county farm advisor. Copies may be purchased from the Supervisor of Documents, State Capitol, Sacramento.

Appropriative Water Rights

Information concerning appropriation of water may be obtained from the Division of Water Resources, Department of Public Works, Sacramento.

Construction of Dams and Other Water-Storage Structures

Information on the construction of small earthen dams may be obtained from the office of the county farm advisor, or from the extension specialist in irrigation, Agricultural Extension Service, Berkeley.

State regulations govern the construction of dams that are more than 25 feet high or which store more than 50 acre-feet of water, with the exception of dams that are not over 6 feet high, regardless of storage capacity, or dams which do not store more than 15 acre-feet of water regardless of height. Inquiries regarding such structures should be addressed to the Division of Water Resources, Department of Public Works, Sacramento.

Water Facilities Program

Information may be obtained from the regional or county office of the Farm Security Administration, the county farm adviser, or the area office of the Soil Conservation Service on water facilities loans, made either to individuals or groups living in certain approved areas.

See Agricultural Conservation Program for construction of earthen tanks and reservoirs, concrete or rubble masonry dams, and wells, and the development of natural watering places; Drainage and Alkali for testing of water for saline content; Weather for forecast of run-off and availability of irrigation water.

Landscape Gardening

General information

Information on adapted varieties of trees, shrubs, and flowers may be obtained from the office of the county farm advisor. Publications on landscape plant materials are available. A correspondence course on home ground ornamentation is also available from the Agricultural Extension Service, Berkeley. Demonstration meetings on landscape gardening and farm home grounds planning and planting are held periodically by home demonstration agents and farm advisors.

See Gardening; Insect Control; Plant Diseases.

Land Use Planning



County Agricultural Economic Conferences

Every year since 1937 a significant series of county agricultural economic conferences have been held in 42 counties of California. The objectives of these conferences have been:

1. To determine the agricultural policies of each county which if put into effect would bring about the most desirable balance between farm income and good land use;

2. To develop plans and recommendations for bringing about desirable shifts and changes in land use, both on agricultural and other lands; and

3. To develop an understanding among farm leaders that some phases of agriculture can be planned and that the actual planning can be done by agricultural people themselves provided there is enough accurate information upon which to base such planning.

The personnel of these conferences consisted of from 40 to 60 selected men of outstanding leadership, ability, and prestige in the county. The deliberations of each conference were limited, through committee and group discussions, to those problems of the county relating to the long-time phases of soils and land use; outlook, marketing, and credit; water supply, irrigation, and drainage; farm management and farm labor; and in some counties, range management.

Each subsequent conference after the first one in each county has devoted its discussions to a review of the progress made since the preceding conference and to revision, modification, or improvement of previous recommendations and the addition of new ones.

Intensive Land Use Planning

Following a conference of representatives of the land-grant colleges and the United States Department of Agriculture at

Mount Weather, Va., in July 1938 a national plan of intensive land use area mapping and classification was developed in selected counties in each State, looking toward a program of unified action by all county, State, and Federal agricultural agencies. The plan imposes upon county and community land use planning committees, consisting largely of representative farmers, the responsibility of the land use planning program, which embodies recommendations for solution of the problems encountered.

Since January 1939 the intensive land use program as outlined in the Mount Weather agreement has been followed essentially, under the leadership of the Agricultural Extension Service. Representatives of State and Federal agencies act in an advisory capacity.

Forest Service Land Use Planning

Land use planning naturally falls partly under the administration of the Forest Service. The basic objective of forest planning is to contribute to the permanent welfare of individuals, families, and communities by managing resources of wood, water, forage, and wildlife, and recreational areas so that they will be continuously of the largest service.

The keynote of national forest management is the perpetuation of natural resources by wise use. All resources are made to contribute to local, State, and National welfare by the practice of scientific and businesslike methods of forestry.

Public Roads Planning

The United States Public Roads Administration cooperates with other public agencies in land use planning studies, with particular reference to probable future land use and to the design of highway systems best suited to the needs of the people who will occupy the land. The Public Roads Administration, Federal Office Building, San Francisco, will also supply information to participating agencies as to present road use, road types suited to the areas under study, and estimated cost of road service in such areas.

Through highway planning studies conducted in cooperation with the State Highway Departments, the United States Public Roads Administration has available information concerning the administration, financing, and operation of highway systems throughout the country. The State Highway Department, through the section of Highway Planning Surveys, obtains general planning information from local planning bodies.

State Planning Board and County Planning Commissions

The California State Planning Board, consisting of three ex officio and five appointive members, is a division of the State Department of Finance. This board is authorized by law to devise means for developing the natural and economic resources of the State, to encourage the extension and correlation of planning by State government agencies, and to participate in interstate and national planning efforts.

Thirty-three counties had officially established planning commissions in California by 1939. The function of these commissions is to prepare and adopt a long-term plan for the physical development of the county. Land use plans may be put into effect through zoning or districting ordinances adopted by the board of supervisors.

Livestock



General Information

Information pertaining to the breeding, feeding, management, and marketing of beef cattle, horses, sheep, swine, and other livestock is available from the office of the county farm advisor.

Experiment Stations and Farms

California farmers are welcome to visit the experimental work in animal husbandry conducted by the University of California Agricultural Experiment Station at Davis; the San Joaquin Experimental Range near Madera, a cattle-range station under the joint supervision of the United States Forest Service and the Division of Animal Husbandry; and the Kellogg Institute of Animal Husbandry at Pomona, devoted to the breeding of Arabian horses.

Market News

Federal-State market news service reports are issued daily and are disseminated over the radio and by mail. These reports are available to interested farmers.

Management Studies

Livestock-management studies, with beef cattle, rabbits, sheep, and swine, have been conducted in some counties. Reports of earlier studies may be obtained from the offices of the county farm advisors of the counties in which they were conducted, and current experimental work may be observed.

See Crop and Livestock Estimates; Feeding Stuffs (Commercial); Livestock Inspection and Disease Control for inspection of meat, disease control, indemnities, hide and brand inspection, and registration; Market Enforcement (Federal); Market News; Range for grazing permits on public lands and for the range conservation program.

Livestock Inspection and Disease Control



Information and Assistance

Information and assistance on the control and prevention of livestock diseases may be obtained from the office of the county farm adviser; the extension specialist in veterinary science; the Division of Veterinary Science of the University of California at Berkeley and at Davis; members of the Division of Animal Industry, State Department of Agriculture, located at Sacramento and at Los Angeles; and from the office of the county livestock inspector, where such departments are organized.

Tuberculosis and Other Diseases of Livestock

All cattle must be tested for tuberculosis. Such services are available from the State Department of Agriculture and from the veterinarians of the Bureau of Animal Industry, United States Department of Agriculture. Cattle shipped from one county to another are subject to retest for approval by the county livestock inspector.

Laboratory examination of specimens of livestock diseases common in California submitted by staff veterinarians will be made by both the University of California and the State Department of Agriculture. Information concerning the examination of such specimens may be obtained from the office of the county farm advisor, the county livestock inspector, or the State Department of Agriculture.

Indemnities

The owners of all breeding and dairy cattle, except grade bulls, condemned for slaughter because of bovine tuberculosis are indemnified jointly from Federal and State funds. Information concerning indemnities may be obtained from the United States Bureau of Animal Industry, Post Office Building, Sacramento, or from the State Department of Agriculture.

Regulations

Regulations covering the movement of livestock both into and out of California may be obtained from the Division of Animal Industry, State Department of Agriculture. Shipments of livestock between counties within the State are subject to county regulations, and information on this subject may be obtained from the office of the county livestock inspector or from the office of the county farm advisor.

Hide and Brand Inspection

Hide and brand inspection is conducted by inspectors employed by the State Department of Agriculture, and is made principally of cattle offered for slaughter. Brands must be inspected at point of shipment. Cattle brands and earmarks must be recorded. Recordation of brands for sheep, horses, mules, burros, and poultry is optional. Information on this service may be obtained from the State Department of Agriculture.

Meat Inspection

State meat inspection is mandatory in all counties with a population of over 27,000 and covers all plants except those that conduct interstate or foreign business and are inspected by the United States Bureau of Animal Industry. Rules and regulations are obtainable from the State Department of Agriculture.

Slaughterers' Licenses

Cattle slaughterers and dealers must be licensed under the marks and brands provisions of the agricultural code. Producers may slaughter for their own use and market locally under certain restrictions. Details may be obtained from the State Department of Agriculture.

See Buildings and Engineering for regulations and plans pertaining to slaughterhouses; Dairying; Livestock; Quarantines.

Loans



General Information

Complete information and publications on each of the several activities of the Farm Credit Administration are available from the information agent of the Farm Credit Administration, Berkeley, or from the local national farm loan associations or production credit associations in the district.

Short-Term Loans for Production Purposes

Production credit associations make short-term loans to finance all types of farm and ranch operations. Farmers and stockmen apply for loans directly to their local production credit association.

Loans are made to finance the production, harvesting, and marketing of crops; the breeding, raising, fattening, and marketing of livestock and commercial poultry; the repair, improvement, and alteration of farm buildings; and other general agricultural enterprises. The length of time for which the association makes a loan depends upon when the borrower expects to market his products. Most crop loans are repaid in from 2 to 10 months. Loans to dairymen generally are for 1 year or less but may be renewed annually for not more than 2 additional years if the collateral and records of repayment are satisfactory. Loans vary in size according to the needs of the borrower and his ability to repay the loan with interest, but no loan may be made for less than \$50. Interest and service charges are kept as low as sound business practice permits. The present (March 1941) interest rate is $4\frac{1}{2}$ percent a year on the unpaid balance.

Short-Term Loans and Discounts for Agricultural Financing Agencies

The Federal Intermediate Credit Bank does not make loans directly to farmers or farmers' organizations. It functions as a discounting agency, and at present most of its disbursements are to the Berkeley Bank for Cooperatives, and the production credit associations. In addition, the Federal Intermediate Credit Bank of Berkeley makes loans to or discounts for privately organized agricultural financing institutions. The present (March 1941) interest and discount rates are $1\frac{1}{2}$ percent a year.

Short-Term Emergency Crop and Feed Loans

The Emergency Crop and Feed Loan Office makes emergency crop and feed loans to farmers whose cash requirements are small and who cannot obtain a loan from any other source. Information may be obtained from the Emergency Crop and Feed Loan Office, City Hall, Beverly Hills.

The amount to be loaned is limited to the applicant's actual cash needs for producing his year's crops or for feeding his livestock. Borrowers must give as security a first lien on the crop financed or on the livestock to be fed. The present (March 1941) interest rate is 4 percent annually, and loans are limited to a minimum of \$10 and a maximum of \$400.

Loans to Farmers' Cooperatives

The Berkeley Bank for Cooperatives provides credit on a business basis for farmers' cooperative associations in California.

Loans are made to farmers' marketing, purchasing, and farm-service associations, such as fruit and vegetable cooperatives, farm-supply associations, and mutual irrigation companies. Three types of loans are made:

1. Commodity loans are made to cooperatives for short periods to finance the processing of commodities, to meet marketing costs, and to aid the association in conducting its

everyday operations. The interest rate is $1\frac{1}{2}$ percent a year.

2. Operating capital loans are used to supplement the cooperative associations' own capital funds during times of peak seasonal activity. Such loans are generally repaid at the end of the marketing season. The interest rate is $2\frac{1}{2}$ percent a year.

3. Facility loans are made for financing or refinancing the acquisition of land and buildings used in carrying on the business of cooperative associations. Facility loans are limited by law to a term of 20 years but are generally repaid within a 10-year period. The interest rate is $3\frac{1}{2}$ percent a year.

Farm Mortgage Loans

Cooperative farm mortgage loans are made in California by the Federal Land Bank through 82 national farm loan associations. To apply for a loan, see the representative of the association operating in the county.

Long-term farm mortgage loans are made to farmers and ranchers on the security of farm land and improvements. Loans are of two kinds—Federal land bank and land bank commissioner loans. Federal land bank loans are made only on the security of first mortgages, but commissioner loans may be made on either first or second mortgage security. National farm loan associations handle applications for both types of mortgage loans.

Every farmer or stockman who gets a land bank loan through a national farm loan association must buy stock in the association equal to 5 percent of his loan.

The smallest amount for which a land bank loan may be made is \$100, and the maximum amount, \$50,000. No loan may exceed 50 percent of the appraised normal value of the land to be mortgaged, plus 20 percent of the appraised value of the permanent insurable improvements on the land. The total amount of a commissioner loan may not exceed \$7,500. The amount of the mortgage, together with all earlier in-

debtedness secured by the property involved, may not exceed 75 percent of the appraised normal value of the property. The term of most land bank loans varies from 20 to 36 years, and for most commissioner loans it is 20 years.

Information concerning interest rates on Federal land bank loans and land bank commissioner loans may be obtained from the local national farm loan association or from the information agent of the Farm Credit Administration, Berkeley.

Federal Housing Administration Insured Loans

Loans on farm property from private lending agencies can be insured by the Federal Housing Administration for short-term periods up to 10 years under title I of the National Housing Act. On nonfarm property the maximum repayment period is 3 years. These loans are available for financing alterations, repairs, and improvements upon or in connection with existing structures, and the building of new structures upon urban, suburban, or rural real estate.

Recent legislation extends benefit of the FHA insured mortgage plan to farms, and farmers may now use an FHA insured mortgage to build or repair farm structures. Under title II of the National Housing Act farm land may be either bought or refinanced on this plan when 15 percent or more of the amount of the loan is used for materials and labor on the construction or repair of farm buildings. These loans, up to \$16,000, are made by lending institutions approved by the Federal Housing Administration. Payments are made in equal installments, monthly, semiannually, or annually, depending upon the distribution of the farmer's income throughout the year. The loans are generally repaid over a period of 20 years, or in some cases 25 years.

Information on FHA insured loans may be obtained from local banks, other FHA approved lending institutions, and from FHA offices at 315 Montgomery Street, San Francisco; or Post Office and Court House, Los Angeles.

Rehabilitation Loans

Rehabilitation loans are made by the Farm Security Administration to low-income farmers who need seed, tools, livestock, and other equipment necessary to carry on farm operations and who cannot get adequate credit elsewhere. Every borrower must own or rent land which will support his family and produce enough income to repay the loan. Loans are repayable over a period of from 1 to 5 years at 5 percent interest. The borrower signs a note secured by a mortgage on livestock, machinery, or crops. Each borrower agrees to follow an approved farm-and-home management plan, which is worked out by the borrower in cooperation with a rural rehabilitation supervisor. Information may be obtained from the county or regional Farm Security Administration supervisor or from the office of the county farm advisor. Information may also be obtained from the regional office of the Farm Security Administration, 85 Second Street, San Francisco.

Tenant Purchase Loans

A limited number of tenant purchase loans for the purchase of farms in designated counties are made to tenants, sharecroppers, and farm laborers. Information concerning counties in which these loans are currently being made may be obtained from the regional or county office of the Farm Security Administration.

Tenant purchase committees, consisting of three farmers, decide which applicants shall receive loans, on the basis of character, ability, and farming experience. The loans are large enough to enable the borrower to buy a farm and if necessary to repair the buildings or put up new ones. Loans are repayable over a period of 40 years at 3 percent interest. No down payment is required, but loans are made only to tenants unable to get adequate credit elsewhere.

Group Loans for Equipment or Service

The Farm Security Administration will make loans to groups of low-income farmers for buying equipment or service, such as a tractor, work stock, combine, purebred sire, veterinary service, and spraying equipment, which farmers often cannot afford to own alone. Information may be obtained from the regional or county office of the Farm Security Administration.

Water Facilities Loans

Water facilities loans are for the purpose of providing loans to low-income farmers for the installation of needed water facilities and for the improvement of existing facilities. These loans are made either to individuals or to groups living in certain approved areas. Information may be obtained from the regional or county office of the Farm Security Administration, from the office of the county farm advisor, and from the area office of the Soil Conservation Service.

See Agricultural Conservation Program for commodity loans; Debt Adjustment; Relief for rehabilitation grants, problems of migrants, the National Youth Administration, and the State Relief Administration; Rural Electrification for loans for the construction and initial operation of rural power lines.

Market Enforcement

General Information

The Bureau of Market Enforcement of the State Department of Agriculture is the agency for enforcing many of the State marketing laws. Information on market enforcement is available from the Bureau of Market Enforcement, State Department of Agriculture, Sacramento, and from the county agricultural commissioner. Farmers should be sure that the produce dealers, commission merchants, or processors with whom they are dealing have been licensed by the Department. Of particular significance to producers are the Produce Dealers Act and the Processors Act.

The Agricultural Marketing Service is the agency for enforcing the Federal marketing laws. Enforcement of several marketing control programs is usually initiated by the agency administering the program.

State Market Enforcement

The Produce Dealers Act requires the licensing and bonding of commission merchants, dealers, and brokers and their agents. Failure of such persons to follow the provisions of the Produce Dealers Act, thereby causing controversies between producers and handlers, calls for adjustment and financial settlement by the Bureau of Market Enforcement, based upon informational hearings and, where necessary, audits. Licenses of violators are subject to suspension or revocation.

The Processors Act provides that canners, dried-fruit packers, wineries, and other processors or preservers of farm products must be licensed and that they are subject to prosecution, suspension, or revocation of license in cases of unfair dealing. Upon complaint, adjustments between producer and processor are made.

Federal Market Enforcement

The marketing of certain agricultural products in interstate or foreign commerce is regulated by the Agricultural Marketing Service of the United States Department of Agriculture. To this Federal agency is delegated the administration of 20 specific regulatory and market service statutes. These include the Cotton Standards Act, Cotton Futures Act, Grain Standards Act, Packers and Stockyards Act, Perishable Agricultural Commodities Act, Standard Container Acts, Produce Agency Act, Export Apple and Pear Act, Dairy Exports Act, Tobacco Inspection Act, Warehouse Act, Federal Seed Act, Insecticide Act, and Naval Stores Act.

Information concerning these acts and their regulations may be obtained from the Agricultural Marketing Service, United States Department of Agriculture, Washington, D. C.

Information concerning specific Agricultural Marketing Service offices in California may be obtained from the office of the county farm advisor and from the office of the county agricultural commissioner.

See Grades and Standards.

Marketing



GENERAL INFORMATION

Economic and marketing information and assistance are made available to farm people by the Agricultural Extension Service. This includes:

(1) Current economic information pertaining to marketing, usually on a commodity basis.

(2) Information concerning the marketing of farm products, such as grading, packaging, distributing, merchandising, and price-making factors. This is often issued in the form of special county or State reports.

(3) Information and assistance in the marketing of farm products by means of marketing institutes, tours, and projects; special meetings with 4-H Club boys and girls; bulletins; circulars; and consultations with farm advisors and marketing specialists.

In accordance with the provisions of the Agricultural Code (div. VI) the State Department of Agriculture is delegated certain authority to aid in marketing problems.

Assistance in Cooperative Marketing

Assistance in the organization of cooperative marketing associations by furnishing economic information concerning the feasibility of a marketing organization, problems relating to incorporation and bylaws, methods of financing and operation, and membership relations, is available from the office of the county farm advisor and the extension specialists in marketing, University of California.

Assistance to cooperative associations in their merchandising, operating, and membership-relations problems is also furnished by the office of the county farm advisor and the extension specialists in marketing, University of California. Assistance in these problems as well as in problems of fi-

nancing is available also from the Berkeley Bank for Cooperatives, Farm Credit Administration, Berkeley.

Marketing Research

The Giannini Foundation of the University of California, and the Agricultural Extension Service, are engaged in research of marketing problems of California farmers. Various branches of the United States Department of Agriculture also conduct research projects in marketing.

Information concerning marketing problems and their analyses may be obtained from the office of the county farm advisor.

Assistance to Farm Groups.

Groups of farmers wishing to institute marketing programs are assisted by the county farm advisor and the county agricultural commissioner in making the proper contacts. The Agricultural Extension Service and the Bureau of Markets, State Department of Agriculture, assist farmers in considering the feasibility of instituting contemplated programs. The Bureau of Markets, State Department of Agriculture, and the Surplus Marketing Administration (formerly the Division of Marketing and Marketing Agreements) of the United States Department of Agriculture, are responsible for the administration of programs already instituted.

MARKETING PROGRAMS

Marketing programs, through which industry groups are able to improve marketing conditions for their products operate in California under Federal and State acts.

State

The following acts provide the enabling legislation for State marketing programs in California: California Agricultural Products Marketing Act; Agricultural Prorate Act; California Marketing Act of 1937; Processed Food Stuff

Marketing Act; Stabilization and Marketing of Fluid Milk and Fluid Cream.

Information concerning each of these acts and the programs operating under them may be obtained from the Bureau of Markets, State Department of Agriculture; the office of the county farm advisor; and the county agricultural commissioner.

Federal

Federal marketing adjustment programs operate under the Agricultural Marketing Agreement Act of 1937 or under section 32 of the 1935 amendments to the Agricultural Adjustment Act, and related legislation. The former provides for marketing agreements and orders which regulate the handling of specified agricultural commodities in interstate commerce. The latter provides for encouraging domestic consumption through direct Government purchases for relief and school-lunch distribution and through operation of the Food Stamp Plan, the Cotton Stamp Plan, and low-cost milk programs. In addition, provision is made for encouraging new uses of agricultural surpluses and for expanding domestic and export outlets. Both the marketing-agreement and the surplus-removal programs are administered by the Surplus Marketing Administration of the United States Department of Agriculture.

Information concerning each of these acts and commodity programs which are operating under them may be obtained from the county farm advisor or from the Surplus Marketing Administration, United States Department of Agriculture, with offices at 112 Market Street, San Francisco, and 704 South Spring Street, Los Angeles.

See Crop and Livestock Estimates; Grades and Standards; Market Enforcement; Market News.

Market News

General Information

Market news includes information relative to wholesale and jobbing prices at terminal markets and in some cases shipping-point prices; volume of shipments; volume and quality of receipts; and tone of markets. Information and assistance in the interpretation of market news reports are available from the office of the county farm advisor.

Private agencies also prepare and distribute market news information to subscribers regarding crops and livestock.

Federal-State Market News

The Bureau of Market News in the Division of Economics of the State Department of Agriculture, in cooperation with Agricultural Marketing Service, United States Department of Agriculture, assembles, compiles, summarizes, interprets, and disseminates market news.

This cooperative service, known as the Federal-State Market News Service, issues daily, weekly, monthly, quarterly, semiannual, and annual reports and summaries covering fresh fruits and vegetables, livestock, dairy and poultry products, meats and wool, grain and feed, dried fruits, nuts, honey, and a number of miscellaneous commodities. This information is broadcast daily by radio and is distributed through the mail.

Information relative to the availability of these reports can be obtained from the State Department of Agriculture at Sacramento, and from the Agricultural Marketing Service, Washington, D. C.

Nursery Licenses and Fruit-Tree Registration

General Information

The movement of plants, seeds, fruits, and vegetables is subject to the provisions of the Agricultural Code and to regulations issued by the State Department of Agriculture, Sacramento, both of which are enforced by the county agricultural commissioner. Information relative thereto is available from the office of the county agricultural commissioner.

Nursery Licenses

Every person who ships or sells nursery stock must obtain a license from the State Department of Agriculture. A nursery fee of \$10 is charged, with additional fees for branches and acreage. The fee is waived from persons not regularly engaged in the nursery business whose sales are less than \$100 annually, upon compliance with conditions prescribed by the county agricultural commissioner.

Nursery Grades and Standards

The Agricultural Code (secs. 1148-1149.9) requires labeling of nursery stock to show the true name and grade size of all stock sold. The code is administered by the State Department of Agriculture. See Grades and Standards.

Fruit-Tree Registration

Plantings of over 1 acre of fruit- and nut-bearing trees must be registered with the county agricultural commissioner. New plantings and tree removals or reductions in acreage for any cause must be reported to the county agricultural commissioner. Information is available from that officer.

See Quarantines.

Plant Diseases

General Information

The identification of plant diseases which are causing crop damage may be obtained from the office of the county farm advisor or from the office of the county agricultural commissioner.

Plant-disease control is often of vital importance in the successful production of a crop. Control measures for most plant diseases are outlined in experiment station publications. Timeliness in the application of control measures is of great importance. Information on plant-disease control may be obtained from the office of the county farm advisor or from the office of the county agricultural commissioner.

Special Laws—Virus Diseases

Section 108.5 of the Agricultural Code permits the State Department of Agriculture to declare host-free periods and areas for the suppression of virus diseases of plants, for example, celery mosaic.

See Insect Control for information on insect pests and pest abatement; Nursery Licenses and Fruit-Tree Registration regarding movement of trees, plants, and seeds, etc.; Quarantines; Spray Residue regarding problem of tolerances, enforcement, and removal.

Poultry



General Information

Information on problems in poultry production, including brooding, breeding, management, and marketing, is available from the office of the county farm advisor.

Cost Accounts and Poultry-Management Studies

Studies on the management of commercial poultry flocks are being conducted by the office of the county farm advisor in 25 counties in California. Reports of these studies are available at the offices of the farm advisors of Fresno, Los Angeles, Orange, Sacramento, San Bernardino, and Santa Cruz Counties. Baby chick and pullet raising studies have been conducted in several counties. A study on fryers was conducted in Orange County in 1939 for the first time. Turkey hatching egg studies are being conducted in Riverside and San Diego Counties. Turkey-meat studies have been conducted in a number of counties in the past.

Prevention and Control of Poultry Diseases and Parasites

The identification of poultry diseases is essential for the intelligent control of such diseases and should preferably be made by a veterinarian. The county farm advisor also may be helpful in identifying certain poultry diseases and parasites and in making control recommendations.

Poultrymen may also bring or send specimens of sick birds to any one of the following poultry pathological laboratories for free diagnosis:

University of California Laboratory, Division of Veterinary Science, Berkeley

University of California Laboratory, Division of Veterinary Science, Davis

California State Department of Agriculture Laboratories at Balboa Park, San Diego; 1451 Mirasol Street, Los Angeles; 627 F Street, Petaluma; State Office Building, Sacramento.

Blood samples for the purpose of blood-testing a breeding flock for pullorum disease may be sent for analysis to the State Department of Agriculture, Poultry Pathological Laboratory, San Diego or Los Angeles. Arrangements for testing blood samples should be made with the laboratory before shipment.

See Grades and Standards for egg standardization; Market News; Crop and Livestock Estimates.

Quarantines

General Information

Through Federal legislation, the Secretary of Agriculture, and through State legislation, the State Director of Agriculture are authorized to use quarantine to prevent the introduction and spread of injurious insect pests and plants and animal diseases, and also certain pest animals.

Plant Quarantines

The Secretary of Agriculture has jurisdiction to prevent the introduction and spread of injurious pests from foreign countries and between the several States in interstate commerce.

The State Department of Agriculture has the authority to promulgate plant quarantines intrastate and interstate in fields not covered by Federal action. The commodities restricted are nursery stock, plants, seeds, fruits, vegetables, and certain other commodities which might be the hosts or carriers of injurious insects or plant diseases.

Before arranging for shipments of quarantinable products from California to other States or from other States to California, the county agricultural commissioner or the State Department of Agriculture should be consulted.

Animal Quarantines

Domestic animals and their products may be subject to quarantine because of their carrying infectious and contagious diseases or parasites of livestock. The United States Bureau of Animal Industry should be consulted for information concerning restrictions on animal importations from foreign countries, and the State Department of Agriculture should be consulted for information on livestock quarantines which may exist against other States in fields not covered by Federal quarantines.

See Insect Control; Livestock Inspection and Disease Control; Nursery Licenses and Fruit-Tree Registration; Plant Diseases; Rodents and Predatory Animals; Seeds; Storage and Transit; Weeds and Poisonous Plants; Wild-Life.

Range

General Information

Information on problems in the improvement and maintenance of the range, such as on deferred and rotation grazing, reseeding of depleted pastures and ranges, and poisonous plants, may be obtained from the office of the county farm advisor.

Grazing Permits on Public Lands

Range use in the national forests is subject to the regulations of the Secretary of Agriculture and grazing privileges are allocated in accordance therewith. The forest supervisor is responsible for the administration of grazing privileges in each national forest, and the district rangers supervise actual range use of these areas. Information concerning grazing privileges in the national forests may be obtained from the forest supervisor or from the United States Forest Service district ranger of the area involved.

Grazing privileges on other Federal lands within Federal grazing districts are subject to the regulations of the Secretary of the Interior (Taylor Grazing Act). The Grazing Service of the United States Department of the Interior administers these regulations. Grazing districts have been established and a Federal range code approved. An elected board of range operators in each grazing district, formally appointed by the Secretary of the Interior, acts in an advisory capacity in all matters affecting administration within the district. There are two grazing districts in California: No. 1, or the Mojave area; and No. 2, or the Lassen-Modoc area.

Isolated tracts of Federal land not included in a national forest or in an established grazing district can be leased to stockmen by the Grazing Service.

Additional information concerning grazing privileges on

public lands can be obtained from the local offices of the Grazing Service, at Bishop, Calif., or at Susanville, Calif.; or from the United States Grazing Service, 220 Federal Building, Reno, Nev.

Range Conservation Program

The range conservation program is designed to promote economic use and conservation of privately owned range land and to decrease the exploitation and wasteful use of range resources. Information on the range conservation program, practices, and payments may be obtained from the office of the county farm advisor or from the office of the county Agricultural Conservation Association.

See: Experiment Stations and Farms; Fire Protection; Livestock Inspection and Disease Control; Rodents and Predatory Animals; Weeds and Poisonous Plants.

Relief

General Information

Relief in California is administered by the Farm Security Administration, by the State Relief Administration, and by county welfare offices. Information is available at these offices concerning the Work Projects Administration, enrollment in the Civilian Conservation Corps, and the National Youth Administration. Information concerning the locations of county or regional Farm Security Administration offices, migratory labor camps, emergency grant offices, and Agricultural Workers' Health and Medical Association offices may be obtained from the office of the county farm advisor.

Work-Grants

Under the rehabilitation program of the Farm Security Administration, small work-grants are available to farmers in extreme need, such as victims of drought, flood, and other disasters. These grants are made for subsistence and medical needs, in return for which the families perform improvement work around the farm.

Problems of Migrants

Migratory labor camps are sponsored and maintained by the Farm Security Administration primarily for migratory agricultural workers. A camp council governs the activities of the residents and assesses each family 10 cents, or 2 hours of work around the camp, a week. The Administration also provides labor homes to selected migrant families for a nominal rental.

Medical aid is provided for migratory agricultural workers who have not been in the State long enough to comply with the statutory residence requirements. This service is administered by the Agricultural Workers' Health and Medical

Association. The Farm Security Administration and State and county medical associations, relief administrations, and departments of public health cooperate in this program. Information may be obtained from any of these agencies.

Migratory labor grants are made to needy families who lack the residence qualification required by State and county relief agencies and who are unable to obtain enough work for subsistence.

State Relief Administration

Some eligibility requirements for SRA relief:

Applicants must be employable and must register with the Department of Employment. Relief is denied any able-bodied person who refuses an offer of suitable work at the prevailing wage.

Applicant is expected to present proof, attested to by oath, of residence; citizenship, or eligible alien status; and need. No family or person is eligible for assistance who has not resided continuously in the State for a period of at least 3 years. A family or person who entered the State after June 1, 1940, will not become eligible for relief until after 5 years. An alien is eligible for relief if he can present proof that he entered the United States prior to July 1, 1924, or that he entered legally subsequent to July 1, 1924. Aid may not be given to any person who was receiving assistance as an indigent from any of the county welfare departments on February 18, 1940.

Further information can be obtained from the local State Relief Administration office in your county.

National Youth Administration

Part-time employment is provided for needy youths aged 18 to 24 years, inclusive, or for school projects, 16 to 24 years. Information may be obtained from the State office of the National Youth Administration, 49 Fourth Street, San Francisco, or from any of the 10 NYA area offices in California.

See Debt Adjustment; Loans.

Rodents and Predatory Animals

General Information

Information on the control of rodents and predatory animals may be obtained from the office of the county farm advisor; the office of the county agricultural commissioner; the State Department of Agriculture, Sacramento; and the United States Fish and Wildlife Service, Sacramento. Special information and assistance on rodent and predatory animal control are available from the office of the county agricultural commissioner.

Predatory Animals

Information on predatory animals and their control may be obtained from the United States Fish and Wildlife Service or from the State Department of Agriculture. These two agencies cooperate with the county boards of supervisors and landowners in controlling predators to prevent livestock and poultry losses. The State Division of Fish and Game, Ferry Building, San Francisco, conducts operations against predators on game refuges and in areas of extensive game concentration to preserve wildlife. A bounty is paid for mountain lions. All of the aforementioned agencies and the State Department of Public Health cooperate in the fight against predators in the event of outbreaks of rabies. The appearance of rabies among domestic or wild animals should be reported to the State Department of Public Health, Sacramento.

Rodent-borne Diseases

Farmers should be on the lookout for diseases harbored by rodents and transmissible to humans, such as plague, relapsing fever, tularemia, and Rocky Mountain spotted fever. These diseases may be transmitted by direct contact through cuts or abrasions or through tick or other insect vectors. Report of apparently diseased rodents should be made to the county agricultural commissioner.

See Quarantines; Wildlife.

Rural Electrification



General Information

There are three principal sources of electric power for California farms: Public utilities, municipal power, and cooperatives. Cooperatives are financed by the Rural Electrification Administration.

Information concerning the cost of electric power for pumping irrigation water and for many other farm uses may be obtained from the office of the county farm advisor and from the Rural Electrification Administration, United States Department of Agriculture, Washington, D. C.

Rural Electrification Administration

The Rural Electrification Administration makes loans to utilities, municipalities, and other public bodies and to cooperatives for the construction and initial operation of rural electric power lines to reach people not now served by electricity. Before a loan can be made, there must be a good prospect that the line will be a financial success. No loans are made to individuals. Members of an REA financed cooperative, however, may borrow from the cooperative to finance the installation of wiring and plumbing in farm buildings. For information about and assistance in procedures necessary for organizing a rural electric cooperative, write directly to REA at Washington.

Information on wiring, lighting, and equipment for the home and other farm buildings is available from the office of the county farm advisor, and from the offices of REA cooperatives. When enough people are interested the farm advisor and extension specialist in Agricultural Engineering hold meetings and demonstrations in the farm community to demonstrate the wiring of farm buildings; good lighting arrangements; fixtures; and the selection, operation, and repair of electric equipment for home and farm use.

See Buildings and Engineering; Septic Tanks.

Seeds

General Information

Information on superior seed and plant sources of many varieties of crops may be obtained from the office of the county farm advisor. Experiments with varieties and time of planting of many farm crops are conducted by the farm advisor and staff, and results are available to the public.

Source of Seeds and Plants

Calapproved seed (seed approved by a State committee representing the College of Agriculture, Farm Bureau, Agricultural Extension Service, State Seed Laboratory, and growers) of wheat, barley, oats, rice, sudan grass, baby lima beans, large lima beans, kidney beans, double dwarf milo, double dwarf darlo, ladiono clover, flax, and other plants is available. A list of growers who have qualified as producers of Calapproved seed has been prepared by the Division of Agronomy, University Farm, Davis. This list of growers is made available periodically through the office of the county farm advisor.

Foundation seed for the production of Calapproved seed for each of the above varieties is available at a nominal price from the Division of Agronomy, University Farm, Davis. Applications for foundation seed must be made through the office of the county farm advisor.

Certified seed of Irish potatoes is listed annually by the State Department of Agriculture, and such lists may be obtained from the Bureau of Fruit and Vegetable Standardization, State Department of Agriculture, Sacramento.

Other sources: The County Agricultural Commissioner upon request may certify to freedom from weeds of crop seed, upon the basis of field inspections (sec. 154.1, Agricultural Code).

Seed Laboratory

The State Department of Agriculture cooperates with the United States Department of Agriculture in maintaining a seed laboratory at Sacramento. This laboratory makes examinations of agricultural seed for purity, germination, and weed seeds. Purity and Germination tests of two samples are made free of charge. A nominal charge is made for additional samples in accordance with regulations. Samples of seed sent to the laboratory for analysis should be representative of the seed lot, and information as to the number and size of samples to be submitted should be obtained in advance.

Seed-Cleaning Machines

Portable seed-cleaning machines are being operated in a number of counties in California, and information on such machines may be obtained from the local office of the County Farm Bureau. Seed cleaning is also done by warehouses and other concerns that operate seed-cleaning equipment.

Seed-Treating Machines

In some counties cereal seeds are dusted for control of seed-borne diseases by means of portable dusting equipment operated by the local Farm Bureau.

Seed Screenings

Screenings and cleanings from agricultural seeds are subject to destruction or treatment as required by the county agricultural commissioner because of weed-seed infestation (sec. 154.3, Agricultural Code).

See Quarantines; Weeds and Poisonous Plants.

Septic Tanks

General Information

Information on the design, location, and construction of septic tanks for the farm home is available from the office of the county farm advisor.

Bulletins and circulars pertaining to septic tanks, farm sewage disposal, farm plumbing, and simple plumbing repairs may be obtained from the office of the county farm advisor. Members of REA-financed cooperatives can obtain similar information from their headquarters.

Local Ordinances

City and county ordinances may in some instances regulate the installation of sewage-disposal systems on farms. Information regarding such regulations should be obtained from the proper local authorities.

In cases where the method of sewage disposal affects the public but is not within the jurisdiction of local authorities, advice should be obtained from the State Department of Public Health, Bureau of Sanitary Engineering, Life Sciences Building, University of California, Berkeley.

See Buildings and Engineering; Rural Electrification.

Soil Conservation

General Information

Information regarding soil and water conservation practices for the control of soil erosion on farms may be obtained from the office of the county farm advisor.

The Soil Conservation Service through its many demonstration projects and CCC camp work areas is demonstrating the application of soil conservation practices to farms. In addition about 150 demonstration farms in 30 counties have been planned cooperatively by the Agricultural Extension Service and the Soil Conservation Service. Information about demonstration farms and projects may be obtained from the office of the county farm advisor.

Soil Conservation Districts

A soil conservation district act has been passed, which enables local groups of people to organize soil conservation districts. One district has been formed, and several areas are seriously considering organization. Information relative to districts can be obtained from either the office of the county farm advisor or the area office of the Soil Conservation Service.

Soil conservation districts are local subdivisions of Government through which farmers and other landowners can obtain the help of State and Federal agencies in planning and carrying out local soil conservation programs.

See Agricultural Conservation Program for conservation practices under the AAA; Experiment Stations and Farms; Soils.

Soils

General Information

Information on soils, including the management of soil, crop adaptability, rotation practices, and fertilizer requirements may be obtained from the office of the county farm advisor. Soil surveys maps are on file at the same office.

Soil Analyses

Soil analyses should be obtained from a commercial laboratory.

See Drainage and Alkali; Fertilizers and Soil Amendments; Irrigation and Water Supplies; Land Use Planning; Soil Conservation.

Spray Residue

General Information

Information concerning spraying and dusting to control insect pests and plant diseases of fruits, vegetables, and field crops under local climatic conditions is available from the office of the county farm advisor.

A spraying program should be followed that will effectively control insect and plant diseases and at the same time not permit spray residue in excess of tolerances on the crop produced. (Sec. 1011, Agricultural Code.)

Enforcement of Spray-Residue Regulations

Enforcement of spray-residue regulations is under the jurisdiction of the Bureau of Chemistry, California State Department of Agriculture, and the Federal Food and Drug Administration, San Francisco. Local health authorities sometimes exercise their authority under Federal tolerances.

Spray-Residue Removal

Excess-spray residue usually may be removed by a chemical bath. Equipment, plans, and formulas for this purpose are obtainable from the Bureau of Chemistry, State Department of Agriculture.

See Insect Control; Plant Diseases.

Storage and Transit

General Information

Information on the storage and shipment of fruits and vegetables is available from the office of the county farm advisor or from the following research offices:

Division of Pomology, University Farm, Davis. (Fruits.)

Division of Viticulture, University Farm, Davis. (Grapes.)

United States Department of Agriculture Horticulture Laboratory, Post Office Building, Pomona. (Citrus and other subtropical fruits.)

United States Department of Agriculture Horticulture Field Station, Fresno. (Fruits and vegetables.)

Storage Structures on Farms

Blueprint drawings and specifications are available for the construction of mechanical refrigerators in four capacity sizes—35, 40, 80, and 125 cubic feet. See also Buildings and Engineering.

Pest Treatment of Shipments

Agricultural commodities destined to other States or to foreign countries are frequently required to be fumigated, subjected to some treatment, or certified to, before they will meet the quarantine restrictions of the State or foreign country of destination and be accepted at that destination. Information may be obtained from the county agricultural commissioner or from the State Department of Agriculture, Sacramento.

See Buildings and Engineering for farm storage structures; Quarantines.

Subtropical Fruits

General Information

Information on the production and marketing of subtropical fruits may be obtained from the office of the county farm advisor. Assistance is available on such subjects as varieties best adapted to particular areas; soil and cultural problems; the availability, quality, and application of irrigation water; fertilization; harvesting; plant disease and pest control; costs of production; and marketing.

Numerous bulletins and circulars have been prepared and are available on the production of various subtropical fruits.

Enterprise-Management Studies

Studies of management have been conducted in the following subjects: Avocado, olive, and date enterprises. Reports on current studies are available at the offices of county farm advisors as follows: Avocados—Orange and San Diego Counties; dates—Riverside County; olives—Tehama County.

See Buildings and Engineering for information on walnut dehydrators; Drainage and Alkali; Farm Accounts and Enterprise-Management Studies; Insect Control; Marketing Programs; Nursery Stock and Fruit-Tree Registration; Plant Diseases; Quarantines; Weather for frost-protection service.

Trade-Marks

General Information

Information on trade-marks to be used in marketing farm products or on the registration of a name for a farm is available at the office of the county farm advisor.

Adoption of a Trade-Mark or a Name for the Farm

Any one may record a trade-mark by filing his claim to it with the Secretary of State. Application for a form upon which to make application for the trade-mark may be made to the Secretary of State, Sacramento. (Sec. 3196-3199 of the Political Code, and Sec. 350-354³/₄ of the Penal Code.)

Any one may adopt a name for the farm or estate owned or leased by him and register the name in the manner provided for the registration of trade-marks.

Any one selling or marketing the products grown on a farm may use the name of the farm as a trade-mark for the products.

Vegetable Crops

General Information

Information on the production and marketing of vegetable crops may be obtained from the office of the county farm advisor. Information is also available as to adapted varieties of vegetables, fertilizer requirements, rotation practices, plant disease and pest control, harvesting, marketing, and cost data. Variety trials, fertilizer-test plots, and other trial practices pertaining to vegetables are conducted by the farm advisor and staff, and field demonstration meetings are held. Information concerning these field activities may be obtained from the office of the farm advisor.

Enterprise-Management Studies

Studies of peas-enterprise management were conducted by the county farm advisor and staff in San Luis Obispo County from 1933 to 1936. Similar studies were made of tomatoes and sweetpotato enterprises in a number of counties in recent years; studies of potatoes are now being conducted.

See Grades and Standards; Market Enforcement; Marketing; Quarantines; Spray Residue; Storage and Transit.

Spray residue remaining on vegetables offered for public sale must be within the tolerances established by the California State Department of Agriculture and the United States Food and Drug Administration. See Spray Residue.

Weather

General Information

Weather forecasts for frost protection, pest control, fire prevention, and the protection of shipments of fruits and vegetables are made by the Weather Bureau, United States Department of Commerce. These forecasts are disseminated over the radio, in the newspapers, and in daily weather maps or reports. Special weather forecasts are also issued during seasons when such forecasts are advisable. The daily weather map may be obtained by a subscription of \$2.40 a year, or 20 cents a month, from the Weather Bureau Office, San Francisco or Los Angeles. These weather maps are on file in the office of the county farm advisor or the office of the County Agricultural Commissioner, in some other public offices, and in public libraries. Weather Bureau offices disseminating weather forecasts for agriculture are located in the following cities: Eureka, Fresno, Los Angeles, Pomona, Sacramento, San Diego, San Francisco.

Pasadena and Mt. Shasta issue fire weather forecasts only.

Collection and Compilation of Weather Data

Climatological data, including records on rainfall, daily temperature, wind conditions, frosts, and other atmospheric phenomena, are collected from about 325 active weather observers. Records to 1940 include data from about 800 California stations. These reports are summarized and published in a monthly report issued by the United States Weather Bureau. Subscription for the monthly report is 25 cents a year.

A Climatic Summary is prepared and issued once a decade. The California data are compiled by regions, which are: Northwestern California, Northeastern California, Central California, Southern California, and Owens Valley. This

report is useful to new settlers and for studies of climatic data generally. Copies of the Summary may be obtained from the United States Weather Bureau, San Francisco, at 10 cents a copy.

The United States Weather Bureau prepares and issues a report, weekly during the summer and monthly during the winter, entitled "Weather and Crop Conditions in California," which summarizes weather conditions and their influence on crops and farming operations, together with comparative data on temperatures and rainfall for various sections of the State.

The United States Weather Bureau in cooperation with the United States Forest Service and Soil Conservation Service collects and compiles data on rainfall, intensity of rainfall, and other weather conditions which is useful in flood control and soil conservation, and also in connection with the building of bridges and other highway and transportation-system structures.

Weather Forecasts

The United States Weather Bureau makes the following weather forecasts, which are disseminated by radio, newspaper, telephone, telegraph, or mail:

Forecasts for frost protection for citrus fruits, and in limited areas for deciduous fruits, are made daily during seasons of frost hazard. Information concerning frost-protection forecasts is available from the office of the county farm advisor.

Forecasts for pest control are made and are issued periodically by radio and in special reports in some districts of California. Information concerning such forecasts may be obtained from the office of the county agricultural commissioner.

Forecasts of stormy weather and snowfall are made and broadcast periodically to assist range operators in the protection of their livestock.

Forecasts for shippers of fruits and vegetables are included

in the daily weather map. These forecasts are designed as warnings of hot weather or freezing weather for produce in transit.

Forecasts of rainfall in fruit areas during the fruit-drying season are made periodically.

Forecasts of weather conditions in consumer areas are made periodically. Such forecasts may have importance in determining market conditions.

Forecasts of fire weather are made daily during seasons of great fire hazard. These forecasts are made from Pasadena and Mount Shasta by means of mobile radio equipment and include wind and humidity conditions and other information of interest in fire-prevention and control.

The United States Weather Bureau issues forecasts or advice on weather conditions as related to slash burning in forest and brush areas. Inquiry for this information should be directed to the United States Weather Bureau offices at Pasadena, San Francisco, or Mount Shasta.

Forecasts are issued periodically of flood conditions in areas threatened by floods.

Forecasts of the availability of water for irrigation during the spring and summer months, based upon surveys of snow conditions in the mountain areas of California, and forecasts of the saline content of waters in the Delta District are made by the State Division of Water Resources in cooperation with the United States Department of Agriculture and other public agencies. Reports on the extent of saline incursion and stream flow in the main rivers flowing into the Delta are issued weekly during the low-water season. Snow-survey reports are issued monthly, beginning on February 1 and continuing until May 1.

Thermometer Testing

In many counties thermometers are tested by the United States Weather Bureau to determine their accuracy in registering temperatures. The thermometers are generally collected through fruit-shipping organizations at a central point,

tested by the Weather Bureau, and returned to the growers. There is generally no charge for this service. In some counties the farm advisor assists the Weather Bureau in the collection and return of the thermometers. In a few counties where the Weather Bureau services are not available the farm advisor tests the thermometers.

Weeds and Poisonous Plants

General Information

Information on the identification, distribution, and control of noxious weeds may be obtained from the office of the county farm advisor, the office of the county agricultural commissioner, or the State Department of Agriculture, Sacramento. Publications on the control of noxious weeds by chemicals and by cultural practices are available from the office of the county farm advisor or from the State Department of Agriculture.

Enforcement of Laws Pertaining to Noxious Weeds

Certain particularly noxious weeds are the object of eradication campaigns participated in by the State Department of Agriculture, the county agricultural commissioner, and the landowners. Weed-control laws are administered by the county agricultural commissioner. Information relative to the enforcement of such laws may be obtained from the State Department of Agriculture or from the office of the county agricultural commissioner.

Agricultural Conservation Program

The control of certain perennial noxious weeds is included as a soil-building practice in the agricultural conservation program and in the range conservation program. Information may be obtained from the office of the county farm advisor or from the office of the County Agricultural Conservation Association.

Poisonous Plants

Poisonous plants sometimes present a serious local problem. Information on stock poisoning from such plants and on safeguards to prevent stock poisoning may be obtained

from the afore-mentioned agencies. Information pertaining especially to the control of poisonous plants in national forests can be obtained from the local forest supervisor or ranger.

See Quarantines; Seeds.

Weights and Measures

General Information

Information pertaining to the weights and measures of various kinds of farm products, the determination of hay tonnage in stacks, bin space required for grain, and other similar information may be obtained from the office of the county farm advisor.

Weights and Measures Laws

Weights and measures laws are administered by the California State Department of Agriculture and by county sealers of weights and measures. The duties of administration include enforcement of all laws pertaining to weights and measures, licensing of public weighmasters, prevention of fraud and deception in the sale of gasoline and other motor fuels and lubricating oils, and enforcement of the hay-baling and bread acts.

Agriculture is greatly dependent upon accurate weights and measures in the sale of its products, and farmers and their representatives should be thoroughly familiar with all laws, rules, and regulations pertaining thereto.

Complete information can be obtained from the State Department of Agriculture at Sacramento or from each county sealer of weights and measures. In counties not having resident county sealers, deputy State sealers are appointed to serve.

Wildlife

General Information

Information on wildlife on farms and in public areas of California may be obtained from the California State Department of Natural Resources, Division of Fish and Game, Ferry Building, San Francisco; from the United States Fish and Wildlife Service, Department of the Interior, Washington, D. C. The California Museum of Vertebrate Zoology, of the University of California, Berkeley, also conducts important research on wildlife problems.

Publications on fish and game may be obtained from the Fish and Wildlife Service, United States Bureau Biological Survey, Washington, D. C.; and from the Division of Fish and Game, San Francisco.

The Fish and Wildlife Service maintains Federal game refuges for the preservation of certain game birds and mammals and experimental areas for conducting research work with fish and game. With the cooperation of the Division of Fish and Game it enforces the migratory-bird treaty acts. Under the Pitman-Robertson Act the Fish and Wildlife Service also cooperates with the Division of Fish and Game in fish and game research and in the purchase of lands for the development of game areas.

Wildlife is a national resource of forests and other land areas. The management of these areas with the purpose of protecting them from fire and making them more suitable for wildlife production, protecting wildlife from illegal hunting and fishing, and studying and investigating wildlife management is carried out cooperatively by the United States Forest Service and Fish and Wildlife Service, the State Division of Fish and Game, and Division of Forestry. Farmers organized in soil conservation districts can obtain technical advice on wildlife problems from the Soil Conservation Service in connection with their local soil conservation program.

Fish and Game Release

Game animals are generally released in areas currently closed to hunting or fishing, and the streams are stocked with fish. Streams in areas which are at least in part open to the general public are also generally stocked with fish. The streams are stocked by the Division of Fish and Game.

Hunting on Private Land

The hunting of wild animals and game birds on private land is subject to the approval of the landowner. Information on the posting of private property may be obtained from the Division of Fish and Game. Trespassing of private property may be reported to the proper police authorities.

Wild Bird and Animal Importations

Wild birds and animal importation into California requires a permit from the Division of Fish and Game, San Francisco, under the Wild Bird and Animal Importation Act; foreign importations require a permit from the United States Fish and Wildlife Service, at San Francisco, Los Angeles, or San Diego under the Lacey Act.

See Experiment Stations and Farms; Quarantines; Rodents and Predatory Animals.



